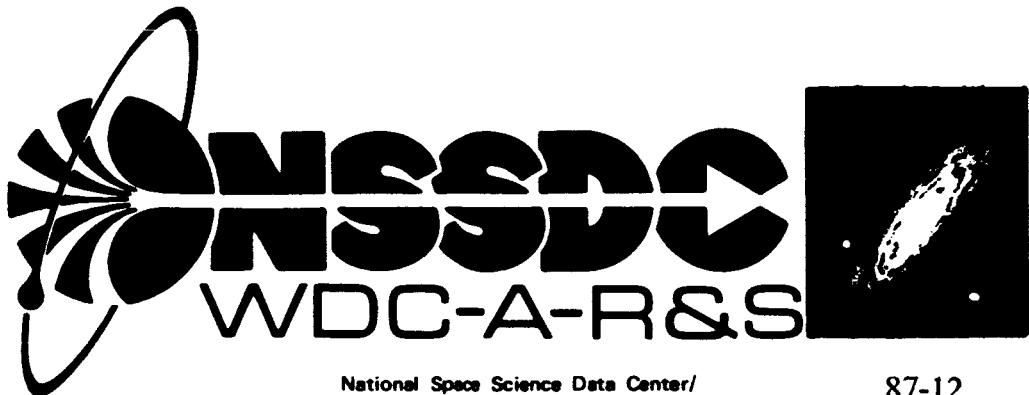


NASA-TM- 89698



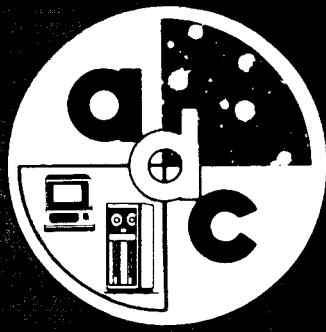
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THE WDS-DM-HD-ADS CROSS INDEX

Documentation for the Machine-Readable Version

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July 1987

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THE WDS-DM-HD-ADS CROSS INDEX
Documentation for the Machine-Readable Version

ABSTRACT

A cross index of 1900 positions and discoverer names, DM numbers, HD numbers, and ADS numbers has been prepared for stars in the 1984 tape version of the *Washington Catalog of Visual Double Stars* (WDS). Five files are furnished so that any of these designations can be used to search the cross index. A file of discoverer names and numbers is included in the catalog for systems with multiple designations. All DM numbers given in the notes to the WDS have been transferred to the cross index, and many additional or corrected DM numbers have been inserted. Year 2000 positions are also given in the sort by 1900 positions.

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SECTION 1 - INTRODUCTION AND SOURCE REFERENCES

A machine-readable version of the *Washington Catalog of Visual Double Stars* (WDS) was prepared in 1984 (Worley 1984) on the basis of a data file that has been collected and maintained for more than a century by a succession of double-star observers. Although this catalog is now being continually updated, a new copy for distribution is not expected to be available for a few years. The WDS contains DM numbers (Argelander 1859-1862, Gill and Kapteyn 1895-1900, Thome 1892-1932), but many of these are listed only in the notes, which makes it difficult to search for double-star information, except by position. Hence, a cross index that provides complete DM identifications is desirable, and it appears useful to add HD numbers (Cannon and Pickering 1918-1924, Cannon 1925-1936) for systems in that catalog. Aitken Double Star (ADS) numbers (Aitken 1932) have been retained from the WDS, but no attempt has been made to correct these except for obvious errors.

This document describes the cross index for the 1984 version of the *Washington Double Star Catalog*, the *Henry Draper Catalogue* (HD), the Durchmusterung catalogs (DM), and the *New General Catalogue of Double Stars* (ADS). It outlines the procedures used to correct and extend the information in the WDS; it is intended to enable users to read and process the data without problems and guesswork. A copy of this document should accompany any machine version of this cross index originating from the Astronomical Data Center.

SOURCE REFERENCES

Aitken, R. E. 1932, *New General Catalogue of Double Stars*, Carnegie Institution of Washington Pub. No. 417, 1-2.

Argelander, F. 1859-1862, *Bonner Sternverzeichnis*, Erste bis dritte Sektion, *Astronomischen Beobachtungen auf der Sternwarte der Königlichen Rhein*, Friedrich-Wilhelms-Universität zu Bonn, Bands 3-5.

Cannon, A. J. 1925-1936, *The Henry Draper Extension*, *Ann. Astron. Obs. Harvard College* 100.

Cannon, A. J. and Pickering, E. C. 1918-1924, *The Henry Draper Catalogue*, *Ann. Astron. Obs. Harvard College* 91-99.

Gill, D. and Kapteyn, J. C. 1895-1900, *Cape Photographic Durchmusterung*, *Ann. Cape Obs.* 3 (1895, Part I: zones -18° to -37°); 4 (1897, Part II: zones -38° to -52°); 5 (1900, Part III: zones -53° to -89°).

Thome, J. M. 1892-1932, *Córdoba Durchmusterung. Resultados del Observatorio Nacional Argentino*, 16 (1892, Part I: -22° to -32°); 17 (1894, Part II: -32° to -42°); 18 (1900, Part III: -42° to -52°); 21 (Part I) (1914, Part IV, -52° to -62°); 21 (Part II) (1932, Part V: -62° to -90°).

Worley, C. E. 1984.0 *Washington Catalog of Visual Double Stars*, U.S. Naval Observatory, private distribution.

SECTION 2 - CATALOG CONTENTS

The machine-readable catalog contains seven files. Following a brief explanation to facilitate reading the tape, the next file is the entire cross index, sorted by 1900 positions but including year 2000 positions. Files 3-6 contain positions only for 1900. File 3 contains the complete cross index sorted by discoverer name and number. Both files 2 and 3 contain at least one component for every system, whether or not the system is included in any other catalog. The following precepts were followed in determining more than one entry for a system:

1. If a system contains more than one observer number, each is included at least once.
2. If a system contains two entries from the same observer, one with a catalog number and one without, both are included.
3. If a system contains more than one component with the same observer and catalog number and the same DM and HD numbers, only the alphabetically earliest component is included.

Files 4-6 provide sorts of the cross index by DM catalog and number, HD number, and ADS number, respectively. These files omit entries for which there is no listing in the catalog on which the sort is based. File 7 is a cross index of names for systems having more than one discoverer name and number. Duplicate entries permit a search for a name by searching bytes 6-12 only.

Tables 1-5, on the following pages, contain byte-by-byte descriptions of the contents of each of the five files of the cross index for the *Washington Catalog of Visual Double Stars*, the *Henry Draper Catalogue*, the *New General Catalog of Double Stars*, and the three Durchmusterung catalogs. Table 6 presents the format for the name cross index. A suggested FORTRAN 77-type format specification for reading each data field is included, but these can be modified depending upon individual programming and processing requirements. All data fields having primary A-format specifications are blank for missing data, so the alternate numerical formats used for machine searches will produce zero values.

Table 1. Tape Contents. *WDS-DM-HD-ADS Cross Index*, WDS Order.

| Byte(s) | Units | Suggested Format | Description |
|---------|-------------|------------------|--|
| 1- 2 | hours | I2 | Hours of right ascension (α) for 1900 |
| 3- 5 | minutes | F3.1 | Minutes of α for 1900 |
| - 6 | --- | A1 | Sign of declination (δ) for 1900 |
| 7- 8 | degrees | I2 | Degrees of δ for 1900 |
| 9-10 | arc minutes | I2 | Minutes of δ for 1900 |
| 11-12 | hours | I2 | Hours of α for 2000 |
| 13-15 | minutes | F3.1 | Minutes of α for 2000 |
| -16 | --- | A1 | Sign of δ for 2000 |
| 17-18 | degrees | I2 | Degrees of δ for 2000 |
| 19-20 | arc minutes | I2 | Minutes of δ for 2000 |
| 21-23 | --- | A3 | Discoverer designation |
| 24-27 | --- | A4 | Discoverer number |
| -28 | --- | A1 | Component |
| 29-30 | --- | A2 | Durchmusterung (DM) catalog designation (BD=Bonner Durchmusterung; CD=Cordoba Durchmusterung; CP=Cape Photographic Durchmusterung). All DM fields are blank if DM number is missing. |
| -31 | --- | A1 | Sign of DM zone |
| 32-33 | degrees | A2 | DM zone |
| 34-38 | --- | A5 | DM number |
| -39 | --- | A1 | Supplement designation if present |
| 40-45 | --- | A6 | <i>Henry Draper Catalogue</i> number |
| 46-50 | --- | A5 | <i>Aitken Double Star Catalog</i> number (ADS) |

Table 2. Tape Contents. WDS-HD-DM-ADS Cross Index, Discoverer Designation Sort.

| Byte(s) | Units | Suggested Format | Description |
|---------|-------------|------------------|---|
| 1- 3 | --- | A3 | Discoverer designation |
| 4- 7 | --- | A4 | Discoverer number |
| - 8 | --- | A1 | Component |
| 9-10 | hours | I2 | Hours of α for 1900 |
| 11-13 | minutes | F3.1 | Minutes of α for 1900 |
| -14 | --- | A1 | Sign of δ for 1900 |
| 15-16 | degrees | I2 | Degrees of δ for 1900 |
| 17-18 | arc minutes | I2 | Minutes of δ for 1900 |
| 19-20 | --- | A2 | DM catalog designation (as in Table 1) |
| -21 | --- | A1 | Sign of DM zone |
| 22-23 | degrees | A2 | DM zone |
| 24-28 | --- | A5 | DM number |
| -29 | --- | A1 | Supplement designation if present |
| 30-35 | --- | A6 | HD number |
| 36-40 | --- | A5 | ADS number |

Table 3. Tape Contents. *WDS-HD-DM-ADS Cross Index*, DM Sort.

| Byte(s) | Units | Suggested Format | Description |
|---------|-------------|------------------|---|
| 1- 2 | --- | A2 | DM catalog designation (as in Table 1) |
| 3 | --- | A1 | Sign of DM zone |
| 4- 5 | degrees | I2 | DM zone |
| 6-10 | --- | I5 | DM number |
| 11 | --- | A1 | Supplement designation |
| 12-14 | --- | A3 | Discoverer designation |
| 15-18 | --- | A4 | Discoverer number |
| 19 | --- | A1 | Component |
| 20-21 | hours | I2 | Hours of α for 1900 |
| 22-24 | minutes | F3.1 | Minutes of α for 1900 |
| 25 | | A1 | Sign of δ for 1900 |
| 26-27 | degrees | I2 | Degrees of δ for 1900 |
| 28-29 | arc minutes | I2 | Minutes of δ for 1900 |
| 30-35 | | A6 | HD number |
| 36-40 | | A5 | ADS number |

Table 4. Tape Contents. *WDS-HD-DM-ADS Cross Index*, HD Sort.

| Byte(s) | Units | Suggested Format | Description |
|---------|-------------|------------------|---|
| 1- 6 | --- | I6 | HD number |
| 7- 9 | --- | A3 | Discoverer designation |
| 10-13 | --- | A4 | Discoverer number |
| 14 | --- | A1 | Component |
| 15-16 | hours | I2 | Hours of α for 1900 |
| 17-19 | minutes | F3.1 | Minutes of α for 1900 |
| 20 | --- | A1 | Sign of δ for 1900 |
| 21-22 | degrees | I2 | Degrees of δ for 1900 |
| 23-24 | arc minutes | I2 | Minutes of δ for 1900 |
| 25-26 | --- | A2 | DM catalog designation (as in Table 1) |
| 27 | --- | A1 | Sign of DM zone |
| 28-29 | degree | A2 | DM zone |
| 30-34 | --- | A5 | DM number |
| 35 | --- | A1 | Supplement designation |
| 36-40 | --- | A5 | ADS number |

Table 5. Tape Contents. *WDS-HD-DM-ADS Cross Index, ADS Sort.*

| Byte(s) | Units | Suggested Format | Description |
|---------|-------------|------------------|--|
| 1- 5 | --- | I5 | ADS number |
| 6- 8 | --- | A3 | Discoverer designation |
| 9-12 | --- | A4 | Discoverer number |
| 13 | --- | A1 | Component |
| 14-15 | hours | I2 | Hours of α for 1900 |
| 16-18 | minutes | F3.1 | Minutes of α for 1900 |
| 19 | --- | A1 | Sign of δ for 1900 |
| 20-21 | degree | I2 | Degrees of δ for 1900 |
| 22-23 | arc minutes | I2 | Minutes of δ for 1900 |
| 24-25 | --- | A2 | DM catalog designations (as in Table 1) |
| 26 | --- | A1 | Sign of DM zone |
| 27-28 | degrees | A2 | DM zone |
| 29-33 | --- | A5 | DM number |
| 34 | --- | A1 | Supplement designation |
| 35-40 | --- | A6 | HD number |

Table 6. Tape Contents. Cross Index of Discoverer Names and Numbers.

| Byte(s) | Units | Suggested Format | Description |
|----------------|--------------|-------------------------|------------------------------|
| 1- 2 | hours | I2 | Hours of <i>a</i> for 1900 |
| 3- 5 | minutes | F3.1 | Minutes of <i>a</i> for 1900 |
| 6-12 | --- | A7 | First designation |
| 13-19 | --- | A7 | Second designation |
| 20-26 | --- | A7 | Third designation, if any |
| 27-33 | --- | A7 | Fourth designation, if any |
| 34-40 | --- | A7 | Fifth designation, if any |
| 41-47 | --- | A7 | Sixth designation, if any |
| 48-54 | --- | A7 | Seventh designation, if any |

SECTION 3 - FILE CHARACTERISTICS

The information in Table 7 is sufficient for a user to describe the indigenous characteristics of the machine-readable *WDS-HD-DM-ADS Cross Index* to a computer. Not included is information easily varied from installation to installation, such as block size (physical record length), blocking factor (number of logical records per physical record), total number of blocks, tape density, number of tracks, and internal coding (EBCDIC, ASCII, etc.). These parameters should always be transmitted if secondary copies of the catalog are supplied to other users or installations.

Table 7. File Characteristics. *WDS-HD-DM-ADS Cross Index.*

| | |
|---------------------------------------|---|
| NUMBER OF FILES..... | 7 |
| LOGICAL RECORD LENGTH (BYTES)..... | 80, 50, 40, 40, 40, 40, 54 |
| RECORD FORMAT | FB* |
| TOTAL NUMBER OF LOGICAL RECORDS | 44, 65467, 65467, 45053, 25800, 18503, 4167 |

* Fixed block length (last block may be short).

SECTION 4 - REMARKS, MODIFICATIONS, ACKNOWLEDGMENTS, AND REFERENCES

A major effort in the preparation of this cross index has been devoted to improving the DM designations. A subset of the information in the WDS has been prepared that lists the 1900 position, the double-star observer and number, the component designation, the DM number, and the ADS number. All DM numbers given only in the notes have been entered by duplicating the entry and changing the component designation appropriately. The standard rule for multiple systems in the catalog is that the DM number refers to the first component. This rule is frequently violated, however, so that it often appears that a single component has two different DM numbers. All such cases have been checked and the component designations have been corrected appropriately.

It should be noted that the introduction to the 1984 machine-readable version of the WDS is in error: unless modified by the notes, DM numbers for the -52° zone refer to the CPD. In multiple systems with more than one discoverer name, numbers are sometimes given for components with one name and not for components with another, even though the magnitudes and spectral types indicate that the entries refer to the same star. In those cases in which the stars are well above the magnitude limit of the Durchmusterung (usually brighter than ninth magnitude), the DM catalog was searched for other stars that might be confused with the star identified in the WDS. If no such star was found, the DM number was entered for the second name as well.

As part of the preparation for the *HIPPARCOS* project, a significant number of DM numbers has been found for WDS stars by position matches (Nys 1983; Bacchus 1983; Nys 1983; Bacchus and Nys 1985; Nys 1984). Many fainter components were located in the *Cape Photographic Durchmusterung* (CP) for systems north of -52° declination for which the brighter component is in the *Córdoba Durchmusterung* (CD). These DM assignments were also checked as far as possible, and most are included in the cross index.

In the course of various checks, other errors were uncovered. Many, but by no means all of these, involved either supplemental stars in the northern hemisphere (Warren and Kress 1980) or catalog confusion in the southern hemisphere. To alleviate the latter problem in the future, catalog designations have been added for all DM numbers. Appendix B (on microfiche) lists all DM numbers that have been newly entered or changed from those in the WDS. Numbers given correctly in the notes to the WDS are not included.

Using the improved DM listing, a correlation between a DM sort of the WDS and a DM sort of the HD was used to insert HD numbers for the appropriate systems. Stars for which WDS and HD listings differed in position by more than 3 minutes of arc in declination or 0.3 minutes of time in right ascension were investigated individually, often leading to the discovery of errors, which were corrected. The stars without DM numbers were then correlated with the HD by position, and the HD numbers were inserted if the magnitudes and spectral types agreed satisfactorily. For most of the position matches, the stars are sufficiently close to the magnitude limit of the HD, or the HD positions in crowded fields are sufficiently rough, that it is impossible to verify that the same star is referenced. For the few cases in which the identity appears highly likely, the HD number and, occasionally, the DM number from the HD have been added to the cross index. All position matches with the HD for WDS stars without DM numbers are listed in Table 8. For the WDS entries, this table gives the 1900 position, the discoverer name and number, and the magnitudes as given in the WDS; the HD data provided are the HD and DM numbers, the position, the visual magnitude, and the spectral type. If the HD does not give a visual magnitude, the photographic magnitude is given in italics.

It proved impossible to resolve a few of the problems uncovered. These are listed in Table 9. In other cases, the resolution may not have been obvious, but a reasonably likely resolution was adopted.

Care should be taken with multiple systems with two or more observer identifications. The WDS is not completely consistent either in assigning DM numbers to relatively bright stars or in assigning DM numbers to components in more than one subsystem. The proper DM number for the component, the DM number for the brightest component, or no DM number may be listed. An attempt has been made to clarify the assignment of the DM numbers when it appears likely that the same star is involved and no DM number is listed. Only in extreme cases have DM numbers been removed for components that are too faint to be in the DM catalogs.

Although an attempt was made to assign the proper DM number to each component, there were some circumstances in which this was not done. If the magnitude of a component is ninth or fainter, if no magnitude is given in the WDS, or if there are several stars in the vicinity with approximately the same magnitude, the proper assignment is uncertain. In many systems a DM number is given for a secondary component, but it is apparent from the magnitudes that the number refers to the brightest component of the subsystem. If the primary of the subsystem is not included in the WDS for the same subsystem *name*, both the component designation and the DM number are retained as given in the WDS unless it is reasonably certain that the star is the same as that in another subsystem with a different DM number. Near the limit of the DM catalogs, especially, many components listed without DM numbers are probably actually DM stars.

As for the DM numbers, HD numbers have been assigned to components listed in more than one subsystem when it appears likely that the same star is involved. However, particularly with HD numbers, it is often difficult to determine whether two stars with the same DM number really are the same star. File 7 lists all systems with multiple discoverer names and numbers, with all designations occurring in the system. It is sorted alphabetically and, within a discoverer designation, numerically. The systems are listed multiply so that the list may be entered with any designation.

An attempt has also been made to assign HD numbers to the proper components when two HD numbers refer to the same DM number, but this is often impossible. In many cases, the assignment of two numbers in the HD is merely an indication that the spectrum is composite, and the assignment of the numbers to individual components is meaningless. Nevertheless, an assignment for at least one discoverer designation in a system is made to alert the catalog user to the existence of two numbers in the HD. In assigning HD numbers to components, the following criteria were used in descending order of priority: (1) the relative position, in the few cases in which the HD lists different positions; (2) spectral type; (3) magnitude; and (4) position angle (that is, the earlier HD number is presumed to be the western component, although in many cases it is clear that the HD could not distinguish which component is the western one).

All changes in the cross index other than those in the DM number are listed in Table 11. The references for the changes listed in the column headed "S" of Appendix B and Table 11 are as follows:

1. Abt, H. A. 1978, private communication.
2. Nys, O. 1983, *Bull. Inform. CDS* No. 24, p. 53.
3. Bacchus, P. 1983, *Bull. Inform. CDS* No. 25, p. 23.
4. Nys, O. 1983, *Bull. Inform. CDS* No. 25, p. 27.
5. Bacchus, P. and Nys, O. 1985, *Bull. Inform. CDS* No. 29, p. 43.
6. Nys, O. 1984, *Bull. Inform. CDS* No. 26, p. 53.
7. ADC.
8. ADC, confirmed in updated WDS file (Worley, private communication). Note that many other changes attributed to the ADC are also included in the updated WDS, but these have not been checked.

For the most part, if a component had a letter designation in the WDS, this is retained to alert the cross index user to the fact that the system may have more than two components. If a DM number is listed in the notes for B in a two-component system, A has been added for the primary component to distinguish between A and B.

The revision of the WDS currently in progress replaces the 1900 positions by J2000 positions. To facilitate the use of this cross index at a later date, equinox 2000 positions are also included in File 2. They may not agree exactly with the new catalog positions, since proper motions are *not* applied; but, except for systems with very high proper motions, they should allow the user to locate the systems in the newer catalog.

Five stars in the WDS have no discoverer designations. Worley has since provided "names" for these systems. These are listed in Table 12 and are included in the cross index.

Table 8. Matches of WDS Stars Without DM Numbers With HD.

| WDS | | | | | | | HD | | | | | | |
|-------|-------|----------|-----|---------|--------|-------|------|------|-------|------|----|--|--|
| RA | Dec | Name | M1 | M2 | Number | DM | Num | RA | Dec | M | Sp | | |
| 00227 | -3231 | I 438B | 106 | 118 | 2396 | CD-32 | 137 | 0226 | -3229 | 101 | G5 | | |
| 00334 | +5916 | STI 108 | 109 | 122 | 3519 | BD+59 | 92 | 0331 | +5916 | 674 | A0 | | |
| 00352 | -0928 | GAL | 85 | 9 | 3748 | BD- 9 | 129 | 0351 | - 929 | 90 | A5 | | |
| 00371 | -2530 | RST2250 | 106 | 125 | 3954 | CD-25 | 268 | 0370 | -2530 | 105 | G0 | | |
| 00419 | +5500 | STI1428 | 97 | 125 | 232272 | BD+54 | 154 | 0417 | +55 1 | 87 | G5 | | |
| 01182 | +4451 | HJ 2041 | 10 | 11 | 8385 | BD+44 | 292 | 1180 | +4451 | 97 | G5 | | |
| 01206 | +0229 | HDO 51B | 102 | 111 | 8686 | BD+ 2 | 207 | 1205 | + 227 | 696 | F0 | | |
| 01325 | +5656 | STI1647 | 105 | 119 | 9955 | BD+56 | 307 | 1322 | +5654 | 82 | A3 | | |
| 01429 | +1629 | LDS3310 | 124 | 177 | 10982 | BD+16 | 203 | 1428 | +1627 | 573 | A0 | | |
| 01539 | +0705 | J 644 | 116 | 125 | 12115 | BD+ 6 | 310 | 1538 | + 7 3 | 91 | G | | |
| 01555 | +5417 | STI1765 | 118 | 122 | 232581 | BD+54 | 438 | 1553 | +5419 | 87 | K0 | | |
| 02031 | -1020 | GAL | 85 | 11 | 13092 | BD-10 | 435 | 230 | -1020 | 93 | G5 | | |
| 02101 | -7029 | HLN | 02 | | 13879 | CP-70 | 129 | 2100 | -7028 | 107 | F0 | | |
| 02103 | -7125 | DAW | B | 115 140 | 13907 | CP-71 | 110 | 2103 | -7125 | 72 | G5 | | |
| 02304 | +5530 | STI1917 | 109 | 122 | 16107 | BD+55 | 671 | 2302 | +5531 | 85 | A5 | | |
| 02363 | +3812 | ALI 759 | 123 | 128 | 16760 | BD+37 | 604 | 2361 | +3811 | 82 | G5 | | |
| 03061 | -2209 | DON | 110 | 130 | 19804 | BD-22 | 560 | 360 | -22 8 | 90 | G0 | | |
| 03136 | -6449 | RST 67B | 95 | 98 | 20586 | CP-64 | 235 | 3136 | -6448 | 677 | F5 | | |
| 03314 | +6250 | ES 1881 | 105 | 106 | 22388 | BD+62 | 590 | 3311 | +6249 | 86 | F0 | | |
| 03402 | +2415 | POU 309 | 130 | 135 | 23441 | BD+24 | 556 | 3401 | +2413 | 646 | B9 | | |
| 03457 | -1704 | ARA 150 | 102 | 132 | 24148 | BD-17 | 738 | 3456 | -17 5 | 81 | K0 | | |
| 03532 | +2321 | POU 340 | 129 | 133 | 24983 | BD+23 | 600 | 3531 | +2320 | 81 | K0 | | |
| 03594 | -1201 | GAL | 85 | 12 | 25674 | BD-12 | 784 | 3593 | -12 1 | 86 | A0 | | |
| 04142 | +2322 | POU 440 | 120 | 137 | 27370 | BD+23 | 675 | 4141 | +2321 | 746 | G5 | | |
| 04181 | +3407 | MLB1036 | 110 | 115 | 27770 | BD+33 | 851 | 4179 | +34 5 | 695 | B9 | | |
| 04407 | -6530 | DAW | 2B | 123 128 | 30229 | CP-65 | 369 | 4406 | -6530 | 90 | G0 | | |
| 04588 | +2349 | POU 533 | 122 | 135 | 32521 | BD+23 | 833 | 4587 | +2347 | 86 | K0 | | |
| 05016 | +0740 | BRT2110 | 120 | 123 | 240799 | BD+ 7 | 803 | 515 | + 739 | 110 | G0 | | |
| 05025 | +2459 | POU 558 | 127 | 132 | 240922 | BD+24 | 758 | 524 | +2457 | 101. | F0 | | |
| 05036 | +2327 | POU 567 | 108 | 127 | 241079 | BD+23 | 862 | 535 | +2327 | 113 | K | | |
| 05039 | +0422 | BAL2628 | 94 | 107 | 241135 | BD+ 4 | 846 | 538 | + 421 | 112 | K5 | | |
| 05048 | +2845 | MLB 561 | 100 | 120 | 241261 | | | 547 | +2844 | 116 | F8 | | |
| 05072 | +2444 | POU 584 | 110 | 126 | 241614 | | | 571 | +2443 | 116 | F5 | | |
| 05080 | +3229 | COU 891 | 108 | 110 | 241732 | BD+32 | 916 | 579 | +3227 | 108 | B9 | | |
| 05107 | +2301 | POU 626 | 107 | 142 | 242168 | BD+22 | 868 | 5106 | +23 1 | 118 | G5 | | |
| 05126 | +2937 | BRT 236 | 99 | 121 | 34468 | BD+29 | 860 | 5125 | +2936 | 88 | A0 | | |
| 05131 | +3216 | SEI 190 | 100 | 110 | 242488 | | | 5130 | +3217 | 116 | A | | |
| 05144 | +2306 | POU 672A | 108 | 145 | 242697 | BD+23 | 896 | 5143 | +23 5 | 106 | G0 | | |
| 05148 | +2912 | BRT 237 | 121 | 121 | 242749 | | | 5147 | +2910 | 113 | A | | |
| 05160 | -6811 | DON 103 | 111 | 115 | 34943 | CP-68 | 338 | 5159 | -6810 | 84 | K5 | | |
| 05169 | +3136 | SEI 230 | 100 | 105 | 243019 | | | 5168 | +3136 | 108 | A5 | | |
| 05172 | +1839 | COU 40 | 97 | 102 | 243082 | | | 5171 | +1839 | 108 | K2 | | |
| 05212 | +3441 | MLB1039 | 105 | 107 | 35619 | BD+34 | 1046 | 5210 | +3441 | 90 | B0 | | |
| 05220 | +5322 | HJ 2263 | 11 | 11 | 35741 | BD+53 | 912 | 5218 | +5320 | 704 | F0 | | |
| 05223 | +1042 | HJ 700 | 99 | 117 | 243912 | BD+10 | 783 | 5222 | +1042 | 110 | F8 | | |
| 05229 | +3146 | SEI 302 | 100 | 105 | 244005 | | | 5228 | +3147 | 120 | F2 | | |
| 05230 | +0353 | HJ 2266 | 110 | 112 | 244041 | BD+ 3 | 911 | 5229 | + 351 | 105 | F0 | | |
| 05244 | +0246 | J 330 | 99 | 100 | 36116 | BD+ 2 | 975 | 5243 | + 247 | 94 | A0 | | |
| 05245 | +2218 | J 590 | 94 | 118 | 244266 | | | 5244 | +2217 | 114 | A5 | | |
| 05293 | +1835 | J 248 | 90 | 95 | 245072 | | | 5292 | +1836 | 107 | A3 | | |
| 05297 | +2301 | POU 741A | 104 | 111 | 245156 | | | 5296 | +23 0 | 108 | A2 | | |
| 05304 | +2312 | POU 748 | 106 | 121 | 245292 | | | 5303 | +2311 | 113 | F8 | | |
| 05320 | +3157 | J 901 | 102 | 102 | 245619 | | | 5319 | +3159 | 114 | A2 | | |
| 05321 | +2417 | POU 765 | 111 | 138 | 37242 | BD+24 | 895 | 5320 | +2415 | 90 | A | | |
| 05349 | +3220 | SEI 372 | 107 | 107 | 246176 | | | 5348 | +3221 | 112 | A3 | | |

Table 8. Matches of WDS Stars Without DM Numbers With HD.

| WDS | | | | | | | HD | | | | |
|-------|-------|----------|-----|-----|--------|------------|------|-------|-----|----|--|
| RA | Dec | Name | M1 | M2 | Number | DM Num | RA | Dec | M | Sp | |
| 05354 | +3358 | SEI 374 | 95 | 100 | 246271 | | 5353 | +3357 | 107 | A0 | |
| 05357 | +3244 | HJ 370 | 103 | 112 | 246332 | | 5356 | +3245 | 104 | B9 | |
| 05381 | +3131 | SEI 381 | 105 | 110 | 246835 | | 5380 | +3129 | 116 | A5 | |
| 05398 | +2604 | J 1906 | 120 | 120 | 247213 | BD+26 944 | 5397 | +26 5 | 92 | A | |
| 05403 | +2410 | POU 773 | 129 | 131 | 247333 | BD+24 951 | 5402 | +2412 | 98 | A3 | |
| 05408 | +3220 | J 902 | 96 | 98 | 247436 | BD+32 1087 | 5407 | +3218 | 95 | G0 | |
| 05444 | +1625 | J 945 | 98 | 105 | 248160 | | 5443 | +1625 | 107 | F8 | |
| 05447 | +2025 | J 1047 | 95 | 96 | 39006 | BD+20 1128 | 5446 | +2025 | 90 | A2 | |
| 05454 | +3133 | COU 896 | 96 | 122 | 248354 | | 5453 | +3133 | 92 | B5 | |
| 05458 | +3232 | SEI 417A | 92 | 108 | 39183 | BD+32 1113 | 5457 | +3231 | 500 | Co | |
| 05460 | +3231 | SEI 421 | 96 | 106 | 248470 | | 5459 | +3232 | 112 | A0 | |
| 05470 | +2431 | POU 804 | 115 | 135 | 248671 | BD+24 1000 | 5469 | +2433 | 105 | B9 | |
| 05525 | +3103 | SEI 451 | 90 | 108 | 249727 | | 5524 | +31 4 | 110 | G0 | |
| 05527 | +2350 | J 957 | 105 | 110 | 249772 | BD+23 1134 | 5526 | +2351 | 99 | F8 | |
| 05548 | +2356 | COU 717 | 106 | 106 | 250220 | | 5547 | +2355 | 111 | G0 | |
| 05561 | +1425 | BRT1192 | 106 | 112 | 250506 | | 5560 | +1423 | 112 | F5 | |
| 05574 | +2741 | HJ 5467 | 107 | 116 | 250785 | | 5573 | +2740 | 104 | A | |
| 05574 | +2347 | POU 860 | 127 | 143 | 250786 | BD+23 1167 | 5573 | +2349 | 106 | A7 | |
| 05575 | +1248 | BRT1193A | 110 | 115 | 250817 | | 5574 | +1247 | 106 | A0 | |
| 05591 | +1846 | BRT2341 | 114 | 118 | 251208 | | 5590 | +1845 | 117 | G5 | |
| 05597 | +1730 | BRT | 115 | 120 | 251373 | | 5596 | +1728 | 110 | G5 | |
| 06009 | +2732 | J 10 | 96 | 118 | 251668 | BD+27 986 | 6 08 | +2734 | 98 | K0 | |
| 06009 | +2433 | POU 951 | 127 | 143 | 251670 | BD+24 1096 | 6 08 | +2433 | 90 | B3 | |
| 06015 | +2334 | POU 977A | 127 | 142 | 251848 | | 6 14 | +2335 | 102 | A0 | |
| 06020 | +2450 | POU 995 | 123 | 133 | 251991 | | 6 19 | +2450 | 106 | A2 | |
| 06021 | +2438 | POU 996A | 110 | 133 | 252025 | | 6 20 | +2438 | 110 | A0 | |
| 06021 | +2351 | POU 998 | 113 | 131 | 41767 | BD+23 1209 | 6 20 | +2352 | 86 | A0 | |
| 06026 | +0745 | J 255A | 93 | 94 | 252168 | | 6 25 | + 743 | 112 | G5 | |
| 06028 | +2424 | POU1025 | 125 | 141 | 252199 | BD+24 1120 | 6 27 | +2426 | 90 | A | |
| 06028 | +1359 | SLV B | | | 252214 | BD+13 1120 | 6 27 | +1359 | 92 | B1 | |
| 06030 | +2403 | POU1033 | 119 | 147 | 252261 | | 6 29 | +24 3 | 106 | A5 | |
| 06030 | +2417 | POU1032 | 103 | 124 | 252260 | BD+24 1124 | 6 29 | +2417 | 99 | K5 | |
| 06031 | +2255 | POU1039 | 108 | 124 | 252293 | | 6 30 | +2255 | 109 | A3 | |
| 06032 | +2413 | POU1047 | 121 | 133 | 252320 | | 6 31 | +2414 | 104 | A | |
| 06032 | +2419 | POU1045 | 117 | 117 | 252319 | | 6 31 | +2421 | 94 | A | |
| 06034 | +2418 | POU1057 | 124 | 132 | 252373 | BD+24 1129 | 6 33 | +2419 | 93 | A0 | |
| 06034 | +2247 | OL 10 | 11 | | 252374 | BD+22 1195 | 6 33 | +2246 | 107 | G5 | |
| 06035 | +2415 | POU1063 | 113 | 137 | 252405 | BD+24 1131 | 6 34 | +2416 | 88 | A0 | |
| 06036 | +2420 | POU1070 | 127 | 129 | 252427 | | 6 35 | +2421 | 107 | A | |
| 06039 | +2425 | POU1077 | 110 | 143 | 252503 | | 6 38 | +2423 | 104 | A | |
| 06039 | +2444 | POU1078 | 127 | 129 | 252502 | BD+24 1137 | 6 38 | +2444 | 107 | G | |
| 06042 | +2416 | POU1093 | 123 | 143 | 252587 | | 6 41 | +2418 | 107 | F8 | |
| 06042 | +2419 | POU1095 | 118 | 134 | 252586 | | 6 41 | +2419 | 100 | A0 | |
| 06043 | +2424 | POU1096 | 110 | 136 | 252609 | | 6 42 | +2424 | 103 | A0 | |
| 06044 | +2308 | POU1101 | 128 | 128 | 252642 | BD+23 1230 | 6 43 | +23 6 | 91 | A2 | |
| 06047 | +2422 | POU1106A | 114 | 124 | 252733 | BD+24 1145 | 6 46 | +2422 | 99 | A3 | |
| 06048 | +2312 | POU1109 | 100 | 121 | 252757 | BD+23 1233 | 6 47 | +2311 | 118 | A | |
| 06049 | +2355 | POU1111 | 112 | 140 | 252780 | BD+23 1235 | 6 48 | +2355 | 112 | K0 | |
| 06049 | +0402 | BAL2653 | 95 | 113 | 252800 | BD+ 4 1146 | 6 48 | + 4 0 | 104 | K5 | |
| 06053 | +2411 | POU1120 | 113 | 119 | 252890 | | 6 52 | +2411 | 118 | K5 | |
| 06055 | +2326 | POU1126 | 122 | 146 | 252943 | | 6 54 | +2328 | 116 | G | |
| 06058 | +0922 | J 2739 | 95 | 128 | 253031 | | 6 57 | + 924 | 114 | G5 | |
| 06063 | +2254 | COU 272 | 100 | 130 | 42543 | BD+22 1220 | 6 62 | +2256 | 630 | K5 | |
| 06065 | +2308 | POU1148 | 129 | 131 | 253210 | | 6 64 | +23 6 | 109 | A0 | |
| 06068 | +0641 | J 1925 | 96 | 97 | 253313 | | 6 67 | + 640 | 114 | A7 | |

Table 8. Matches of WDS Stars Without DM Numbers With HD.

| WDS | | | | | | HD | | | | | |
|-------|-------|----------|-----|-----|--------|-------|------|------|-------|-----|----|
| RA | Dec | Name | M1 | M2 | Number | DM | Num | RA | Dec | M | Sp |
| 06071 | +2317 | POU1158 | 113 | 130 | 253364 | | | 6 70 | +2315 | 110 | F0 |
| 06081 | +2130 | J 2590 | 125 | 125 | 42858 | BD+21 | 1159 | 6 80 | +2128 | 98 | A0 |
| 06085 | +2426 | POU1168 | 127 | 143 | 253724 | BD+24 | 1170 | 6 84 | +2426 | 107 | G0 |
| 06091 | +2436 | POU1172 | 127 | 147 | 43041 | BD+24 | 1174 | 6 90 | +2436 | 86 | K5 |
| 06094 | +0053 | BAL 993 | 99 | 110 | 43102 | BD+ 0 | 1338 | 6 93 | + 053 | 854 | A0 |
| 06097 | +1306 | J 391 | 95 | 110 | 254003 | | | 6 96 | +13 7 | 106 | A3 |
| 06104 | +2320 | J 341A | 97 | 97 | 254171 | | | 6103 | +2321 | 107 | A2 |
| 06106 | +0530 | J 971 | 97 | 125 | 254254 | | | 6105 | + 530 | 111 | A0 |
| 06109 | +2344 | POU1189 | 116 | 136 | 43384 | BD+23 | 1275 | 6108 | +2346 | 626 | B2 |
| 06109 | +1815 | J 1934 | 94 | 110 | 254322 | | | 6108 | +1816 | 106 | F8 |
| 06113 | +1826 | COU 579 | 105 | 108 | 43459 | BD+18 | 1156 | 6112 | +1825 | 83 | G5 |
| 06114 | +1632 | J 3283 | 97 | 135 | 254452 | BD+16 | 1075 | 6113 | +1630 | 101 | A2 |
| 06115 | +2342 | POU1194 | 117 | 137 | 254472 | BD+23 | 1279 | 6114 | +2344 | 110 | K5 |
| 06119 | -2307 | ARA2002 | 127 | 130 | 43572 | CD-23 | 3624 | 6118 | -23 7 | 95 | G5 |
| 06122 | -1357 | GAL | 9 | 107 | 43629 | BD-13 | 1420 | 6121 | -1357 | 95 | G5 |
| 06124 | +0921 | OPI | 102 | 115 | 254710 | | | 6123 | + 921 | 108 | A5 |
| 06129 | +0961 | J 2420 | 93 | 130 | 254854 | | | 6128 | + 959 | 108 | A0 |
| 06133 | +2557 | J 2421 | 113 | 119 | 254949 | BD+25 | 1212 | 6132 | +2557 | 98 | A0 |
| 06142 | -0119 | BAL 318 | 112 | 114 | 43988 | BD- 1 | 1188 | 6141 | - 120 | 76 | K0 |
| 06143 | +2359 | POU1232A | 120 | 136 | 255239 | | | 6142 | +2358 | 122 | G5 |
| 06145 | +2330 | POU1237 | 112 | 125 | 255311 | | | 6144 | +2331 | 110 | F8 |
| 06146 | +2502 | POU1238 | 116 | 148 | 255332 | | | 6145 | +25 3 | 113 | F5 |
| 06161 | +2206 | J 1941 | 106 | 108 | 255759 | BD+22 | 1298 | 6160 | +22 8 | 101 | A0 |
| 06163 | +0220 | BAL1691 | 107 | 113 | 44333 | BD+ 2 | 1197 | 6162 | + 219 | 625 | A5 |
| 06164 | +1105 | J 1324 | 102 | 135 | 255870 | | | 6163 | +11 3 | 113 | A7 |
| 06167 | +2405 | POU1274 | 130 | 146 | 255947 | BD+24 | 1230 | 6166 | +24 5 | 96 | F8 |
| 06171 | +2438 | POU1282 | 114 | 147 | 256073 | BD+24 | 1233 | 6170 | +2439 | 107 | A5 |
| 06175 | +2331 | POU1290 | 126 | 150 | 256193 | BD+23 | 1333 | 6174 | +2330 | 102 | A2 |
| 06180 | +1951 | BRT2350 | 130 | 132 | 256342 | BD+19 | 1327 | 6179 | +1949 | 102 | F8 |
| 06180 | +0356 | BAL2165 | 91 | 97 | 256358 | | | 6179 | + 356 | 102 | A0 |
| 06183 | -2333 | ARA2003 | 117 | 120 | 44735 | CD-23 | 3768 | 6182 | -2332 | 81 | A3 |
| 06184 | +2404 | POU1303 | 122 | 134 | 256469 | | | 6183 | +24 5 | 115 | K0 |
| 06191 | +1117 | BRT2118 | 130 | 130 | 44853 | BD+11 | 1159 | 6190 | +1119 | 700 | K0 |
| 06191 | -2210 | ARA1644 | 114 | 124 | 44860 | BD-22 | 1397 | 6190 | -2212 | 90 | K0 |
| 06195 | +1055 | BRT2119 | 123 | 130 | 256819 | BD+10 | 1127 | 6194 | +1054 | 107 | K0 |
| 06204 | +1907 | BU | 102 | 130 | 45087 | | | 6203 | +19 8 | | Pe |
| 06209 | +2415 | POU1331 | 119 | 131 | 257212 | BD+24 | 1265 | 6208 | +2417 | 95 | A0 |
| 06219 | +2336 | POU1338 | 123 | 140 | 257497 | | | 6218 | +2336 | 114 | F |
| 06242 | +2408 | POU1372 | 130 | 140 | 258280 | BD+24 | 1289 | 6241 | +24 6 | 103 | G0 |
| 06245 | +0822 | J 720 | 103 | 105 | 258398 | | | 6244 | + 823 | 107 | B8 |
| 06246 | +1240 | HJ 3283 | 98 | 102 | 258422 | | | 6245 | +1241 | 112 | G |
| 06250 | +2349 | POU1387 | 130 | 140 | 258541 | BD+23 | 1384 | 6249 | +2347 | 106 | K5 |
| 06251 | +1333 | J 1950 | 98 | 102 | 258576 | | | 6250 | +1332 | 112 | F5 |
| 06258 | +1724 | BRT1203 | 104 | 107 | 258813 | | | 6257 | +1724 | 106 | A3 |
| 06268 | +2425 | POU1424 | 130 | 135 | 259114 | | | 6267 | +2424 | 118 | K0 |
| 06269 | +0304 | BAL2176 | 108 | 114 | 259176 | BD+ 3 | 1282 | 6268 | + 3 2 | 101 | G0 |
| 06271 | +0824 | J 2395 | 109 | 110 | 259234 | | | 6270 | + 822 | 112 | A2 |
| 06272 | +2346 | POU1427 | 106 | 122 | 259247 | BD+23 | 1397 | 6271 | +2346 | 101 | A0 |
| 06273 | +2321 | POU1430 | 112 | 134 | 259279 | | | 6272 | +2323 | 112 | A |
| 06273 | +1709 | J 1956 | 95 | 99 | 259287 | BD+17 | 1290 | 6272 | +17 9 | 108 | G0 |
| 06275 | +1231 | J 2023 | 94 | 108 | 259367 | BD+12 | 1189 | 6274 | +1232 | 106 | A3 |
| 06275 | +0542 | J 1957 | 106 | 106 | 259374 | | | 6274 | + 543 | 118 | A |
| 06282 | +2419 | POU1467 | 120 | 143 | 259583 | BD+24 | 1310 | 6281 | +2419 | 95 | A3 |
| 06286 | +2315 | POU1492 | 118 | 121 | 46466 | BD+23 | 1407 | 6285 | +2317 | 94 | A0 |
| 06289 | +2421 | POU1512A | 114 | 145 | 46515 | BD+24 | 1315 | 6288 | +2422 | 95 | A0 |

Table 8. Matches of HDS Stars Without DM Numbers With HD.

| HDS | | | | | | | HD | | | | | | |
|-------|-------|----------|-----|-----|--------|-------|------|------|--------|-----|----|--|--|
| RA | Dec | Name | M1 | M2 | Number | DM | Num | RA | Dec | M | Sp | | |
| 06290 | +2420 | POU1518A | 110 | 151 | 259847 | BD+24 | 1316 | 6289 | +2422 | 93 | G0 | | |
| 06292 | +2334 | POU1535 | 105 | 123 | 259904 | | | 6291 | +2334 | 106 | F0 | | |
| 06300 | +2646 | BRT 13 | 98 | 109 | 46734 | BD+26 | 1286 | 6299 | +2648 | 94 | F8 | | |
| 06305 | +0513 | J 265 | 93 | 98 | 260333 | | | 6304 | + 513 | 108 | A2 | | |
| 06306 | +0034 | J 350 | 95 | 95 | 46848 | BD- 0 | 1353 | 6305 | - 034 | 89 | B9 | | |
| 06307 | +2340 | GCB 20 | 93 | 95 | 260371 | BD+23 | 1424 | 6306 | +2342 | 106 | A2 | | |
| 06308 | +0413 | BAL2676 | 94 | 113 | 260421 | | | 6307 | + 414 | 112 | F5 | | |
| 06316 | +2358 | POU1689A | 106 | 138 | 260649 | BD+24 | 1329 | 6315 | +2358 | 105 | K0 | | |
| 06319 | +0609 | J 985 | 94 | 98 | 47088 | BD+ 6 | 1308 | 6318 | + 6 8 | 83 | B8 | | |
| 06322 | +0454 | BAL2678 | 109 | 113 | 260869 | | | 6321 | + 456 | 107 | G0 | | |
| 06323 | +2447 | POU1720 | 120 | 139 | 260878 | | | 6322 | +2448 | 107 | A2 | | |
| 06324 | -1708 | ARA 168 | 98 | 128 | 47204 | BD-17 | 1554 | 6323 | - 17 9 | 89 | A2 | | |
| 06333 | +2426 | POU1773 | 122 | 140 | 261189 | BD+24 | 1342 | 6332 | +2428 | 104 | K0 | | |
| 06335 | +2427 | POU1784A | 125 | 154 | 261246 | BD+24 | 1347 | 6334 | +2426 | 112 | M0 | | |
| 06335 | +2343 | POU1781 | 120 | 132 | 261247 | | | 6334 | +2341 | 106 | G | | |
| 06341 | +0457 | BAL2680 | 106 | 109 | 261454 | | | 6340 | + 458 | 110 | B9 | | |
| 06343 | +2336 | POU1827A | 94 | 146 | 261507 | BD+23 | 1449 | 6342 | +2336 | 102 | G0 | | |
| 06345 | +0257 | BAL1702 | 93 | 105 | 261596 | BD+ 3 | 1343 | 6344 | + 259 | 104 | A3 | | |
| 06346 | +2320 | POU1847 | 120 | 147 | 261606 | BD+23 | 1454 | 6345 | +2318 | 89 | B9 | | |
| 06350 | +2051 | COU 582 | 110 | 130 | 261730 | BD+20 | 1527 | 6349 | +2051 | 99 | G5 | | |
| 06353 | +0444 | BAL2686 | 102 | 106 | 261817 | BD+ 4 | 1378 | 6352 | + 443 | 106 | K7 | | |
| 06355 | +0959 | HU | | | 261878 | BD+ 9 | 1338 | 6354 | + 958 | 92 | A0 | | |
| 06358 | +1118 | BRT1209 | 130 | 140 | 261968 | BD+11 | 1271 | 6357 | +1118 | 94 | F8 | | |
| 06362 | +0316 | BAL2186 | 103 | 108 | 262117 | | | 6361 | + 317 | 121 | K5 | | |
| 06363 | +1418 | J 2749 | 99 | 117 | 48011 | BD+14 | 1395 | 6362 | +1419 | 681 | A2 | | |
| 06364 | +2326 | FOX | 103 | 105 | 262163 | | | 6363 | +2326 | 103 | F8 | | |
| 06364 | +0611 | J 2748 | 110 | 112 | 262183 | | | 6363 | + 611 | 99 | A2 | | |
| 06372 | +2760 | A 510 | 95 | 120 | 262387 | BD+28 | 1216 | 6371 | +2759 | 104 | M0 | | |
| 06372 | +0906 | BRT2123A | 97 | 122 | 262406 | BD+ 9 | 1362 | 6371 | + 9 5 | 102 | F8 | | |
| 06374 | +2436 | POU1959 | 107 | 127 | 262464 | | | 6373 | +2437 | 112 | G | | |
| 06378 | +0422 | BAL2695 | 104 | 106 | 262601 | | | 6377 | + 420 | 112 | A7 | | |
| 06378 | -0928 | GAL | 70 | 85 | 48311 | BD- 9 | 1606 | 6377 | - 928 | 84 | A0 | | |
| 06388 | +2324 | POU1976 | 101 | 107 | 262885 | BD+23 | 1482 | 6387 | +2324 | 96 | F0 | | |
| 06397 | +3227 | COU1410 | 115 | 130 | 263176 | | | 6396 | +3228 | 110 | K0 | | |
| 06397 | +2415 | POU1991 | 119 | 139 | 48715 | BD+24 | 1390 | 6396 | +2414 | 82 | A3 | | |
| 06401 | +2239 | COU 472 | 99 | 99 | 263300 | | | 6400 | +2240 | 109 | G5 | | |
| 06409 | +2342 | POU2009 | 126 | 127 | 263541 | | | 6408 | +2341 | 102 | A2 | | |
| 06409 | +0817 | J 268 | 95 | 98 | 263557 | BD+ 8 | 1485 | 6408 | + 818 | 100 | F8 | | |
| 06415 | +1356 | BRT | 108 | 113 | 263734 | BD+14 | 1432 | 6414 | +1358 | 104 | G5 | | |
| 06417 | +2314 | POU2020 | 110 | 110 | 263785 | | | 6416 | +2314 | 108 | A | | |
| 06422 | +2412 | POU2027 | 105 | 121 | 263938 | BD+24 | 1405 | 6421 | +2410 | 103 | G8 | | |
| 06423 | +2321 | POU2030 | 127 | 129 | 49201 | BD+23 | 1499 | 6422 | +2321 | 80 | G5 | | |
| 06452 | +3252 | SEI 465 | 102 | 107 | 264868 | | | 6451 | +3253 | 113 | K7 | | |
| 06459 | -3109 | B C | | | 49960 | CD-31 | 3707 | 6458 | -3110 | 87 | G5 | | |
| 06463 | +0521 | J 2398 | 100 | 105 | 265253 | | | 6462 | + 521 | 113 | G | | |
| 06467 | +2022 | BRT2366 | 120 | 124 | 265356 | | | 6466 | +2021 | 116 | K0 | | |
| 06469 | +2329 | POU2088 | 130 | 137 | 265410 | | | 6468 | +2328 | 108 | F5 | | |
| 06482 | +2451 | POU2121 | 128 | 142 | 265815 | BD+24 | 1445 | 6481 | +2452 | 101 | A2 | | |
| 06492 | +0003 | BAL1057 | 115 | 115 | 50667 | BD- 0 | 1482 | 6491 | - 0 5 | 913 | A0 | | |
| 06495 | -0133 | BAL 357 | 87 | 110 | 50748 | BD- 1 | 1443 | 6494 | - 131 | 89 | B9 | | |
| 06498 | +0824 | J 2034 | 130 | 140 | 266307 | BD+ 8 | 1559 | 6497 | + 825 | 100 | B9 | | |
| 06502 | -2239 | ARA1669 | 113 | 114 | 50915 | BD-22 | 1587 | 6501 | -2240 | 101 | A2 | | |
| 06503 | -0141 | BAL 361 | 95 | 112 | 50932 | BD- 1 | 1453 | 6502 | - 140 | 96 | A0 | | |
| 06505 | +0620 | BRT2126 | 103 | 120 | 266532 | BD+ 6 | 1440 | 6504 | + 620 | 93 | B9 | | |
| 06512 | +2727 | HJ 404 | 11 | 11 | 266716 | | | 6511 | +2728 | 109 | A2 | | |

Table 8. Matches of WDS Stars Without DM Numbers With HD.

| WDS | | | | | | HD | | | | | | |
|-------|-------|----------|-----|-----|--------|-------|-------|------|-------|-------|-----|----|
| RA | Dec | Name | M1 | M2 | Number | DM | Num | RA | Dec | M | Sp | |
| 06515 | +2430 | POU2161 | 128 | 134 | 266805 | BD+24 | 1474 | 6514 | +2431 | 104 | F0 | |
| 06518 | -2354 | RST2438A | 104 | 108 | 51310 | CD-23 | 4602 | 6517 | -2354 | 107 | A2 | |
| 06522 | +2426 | POU2175 | 127 | 132 | 267016 | BD+24 | 1480 | 6521 | +2424 | 101 | A0 | |
| 06522 | +2430 | POU2176 | 107 | 128 | 267015 | | | 6521 | +2430 | 110 | G5 | |
| 06524 | +2354 | POU2179 | 108 | 140 | 267068 | | | 6523 | +2354 | 118 | K5 | |
| 06527 | +2357 | POU2189 | 126 | 137 | 267152 | BD+23 | 1559 | 6526 | +2355 | 108 | F2 | |
| 06531 | +0233 | BAL1745 | 102 | 104 | 51621 | BD+ 2 | 1484 | 6530 | + 232 | 87 | B8 | |
| 06532 | +1234 | BRT1219 | 11 | 11 | 267303 | | | 6531 | +1236 | 112 | F5 | |
| 06533 | +2325 | POU2209 | 130 | 131 | 267322 | | | 6532 | +2324 | 110 | F8 | |
| 06533 | +1346 | POP 114 | 123 | 129 | 51668 | BD+13 | 1501 | 6532 | +1347 | 103 | K | |
| 06536 | -0018 | BAL 745 | 95 | 113 | 51754 | BD- 0 | 1520 | 6535 | - 018 | 96 | G0 | |
| 06548 | +1238 | BRT2285 | 107 | 107 | 267717 | BD+12 | 1378 | 6547 | +1236 | 106 | F8 | |
| 06549 | +2438 | COU 923 | 130 | 134 | 52102 | BD+24 | 1491 | 6548 | +2438 | 84 | A2 | |
| 06549 | +0314 | BAL2225 | 100 | 104 | 267745 | | | 6548 | + 315 | 111 | F2 | |
| 06575 | +2342 | POU2348 | 109 | 130 | 268384 | | | 6574 | +2344 | 108 | K2 | |
| 06581 | +2333 | POU2367 | 99 | 139 | 268503 | BD+23 | 1582 | 6580 | +2333 | 102 | K0 | |
| 06584 | -1633 | GAL 292 | 9 | 11 | 53013 | BD-16 | 1723 | 6583 | -1633 | 690 | K0 | |
| 06594 | +0329 | BAL2239 | 110 | 111 | 268588 | | | 6593 | + 329 | 109 | K5 | |
| 07012 | -1032 | OL | 97 | 98 | 53755 | BD-10 | 1862 | 7 11 | -1030 | 638 | B3 | |
| 07036 | -3417 | JSP | C | 100 | 140 | 54394 | CD-34 | 3348 | 7 35 | -3415 | 108 | A0 |
| 07049 | +1553 | J 703 | 97 | 97 | 54721 | BD+15 | 1490 | 7 48 | +1554 | 97 | K0 | |
| 07060 | -0222 | BAL 148 | 111 | 114 | 54974 | BD- 2 | 1963 | 7 59 | - 224 | 84 | K2 | |
| 07064 | -0015 | BAL 774 | 100 | 113 | 55058 | BD- 0 | 1633 | 7 63 | - 015 | 87 | A2 | |
| 07076 | -0031 | BAL 777 | 104 | 107 | 55363 | BD- 0 | 1641 | 7 75 | - 030 | 90 | F5 | |
| 07078 | -0211 | BAL 160 | 101 | 114 | 55414 | BD- 2 | 1986 | 7 77 | - 210 | 93 | A0 | |
| 07119 | -0956 | J 2804 | 99 | 102 | 56426 | BD- 9 | 1950 | 7118 | - 954 | 97 | A0 | |
| 07120 | -0044 | BAL 789 | 98 | 110 | 56448 | BD+ 0 | 1881 | 7119 | + 044 | 83 | K0 | |
| 07164 | -2019 | ARA 909 | 130 | 133 | 57480 | BD-20 | 1865 | 7163 | -2018 | 95 | A0 | |
| 07194 | -0047 | BAL 804 | 109 | 109 | 58165 | BD+ 0 | 1933 | 7193 | + 047 | 899 | F0 | |
| 07225 | -2201 | ARA1688 | 109 | 117 | 58885 | BD-21 | 1941 | 7224 | -22 1 | 90 | K0 | |
| 07230 | -1604 | BRT 613 | 111 | 120 | 59003 | BD-15 | 1834 | 7229 | -16 3 | 97 | Mb | |
| 07232 | -1858 | ARA 373 | 121 | 128 | 59048 | BD-18 | 1845 | 7231 | -1857 | 100 | A2 | |
| 07236 | -1929 | ARA 587 | 111 | 115 | 59133 | BD-19 | 1900 | 7235 | -1928 | 95 | A2 | |
| 07290 | -2031 | BRT1412 | 130 | 130 | 60342 | BD-20 | 2015 | 7289 | -2030 | 87 | B8 | |
| 07294 | -0546 | J 372 | 95 | 130 | 60443 | BD- 5 | 2168 | 7293 | - 544 | 92 | A3 | |
| 07320 | -1416 | HJ 5470 | 9 | 10 | 60968 | BD-14 | 2017 | 7319 | -1414 | 101 | K0 | |
| 07332 | -0530 | J 2844 | 115 | 118 | 61220 | BD- 5 | 2189 | 7331 | - 529 | 92 | Mb | |
| 07344 | -2210 | ARA1700 | 112 | 122 | 61467 | BD-22 | 1961 | 7343 | -2212 | 89 | K0 | |
| 07381 | -1825 | ARA 384 | 126 | 132 | 62269 | BD-18 | 1978 | 7380 | -1824 | 105 | A2 | |
| 07397 | -1641 | ARA 41 | 102 | 129 | 62589 | BD-16 | 2101 | 7396 | -1641 | 81 | B5 | |
| 07402 | -2338 | ARA2065 | 97 | 111 | 62679 | CD-23 | 6064 | 7401 | -2338 | 89 | K | |
| 07404 | -2338 | ARA2069 | 101 | 101 | 62733 | CD-23 | 6081 | 7403 | -2338 | 112 | B9 | |
| 07436 | +0029 | RST5273 | 109 | 110 | 63368 | BD- 0 | 1828 | 7435 | - 030 | 83 | K0 | |
| 07510 | -2243 | ARA1714 | 108 | 120 | 64873 | BD-22 | 2074 | 7509 | -2244 | 91 | K5 | |
| 07570 | -4421 | DON | 111 | 121 | 66104 | CD-44 | 3939 | 7569 | -4423 | 91 | B8 | |
| 08023 | +0028 | RST5283 | 112 | 112 | 67301 | BD+ 0 | 2193 | 8 22 | + 029 | 91 | K0 | |
| 08023 | -1733 | ARA 210 | 125 | 125 | 67303 | BD-17 | 2333 | 8 22 | -1733 | 92 | B5 | |
| 08053 | -1052 | J 2493 | 95 | 125 | 67940 | BD-10 | 2404 | 8 52 | -1051 | 95 | K | |
| 08073 | -3142 | PRO 46 | 116 | 116 | 68429 | CD-31 | 5646 | 8 72 | -3143 | 93 | A2 | |
| 08098 | -0102 | J 2055 | 94 | 95 | 68972 | BD- 0 | 1945 | 8 97 | - 1 4 | 91 | G5 | |
| 08344 | -2017 | ARA1056 | 96 | 126 | 73650 | BD-20 | 2623 | 8343 | -2017 | 923 | K2 | |
| 08569 | -4246 | DON 308 | 110 | 130 | 77320 | CD-42 | 4875 | 8567 | -4247 | 612 | B3 | |
| 09044 | +1554 | BRT1263 | 106 | 113 | 78634 | BD+16 | 1914 | 9 43 | +1552 | 85 | A2 | |
| 09129 | -4951 | R 109A | 95 | 10 | 80124 | CD-49 | 4269 | 9128 | -4951 | 92 | G5 | |
| 09179 | -2254 | ARA1766 | 125 | 127 | 80972 | BD-22 | 2587 | 9178 | -2254 | 88 | F5 | |

Table 8. Matches of WDS Stars Without DM Numbers With HD.

| WDS | | | | | | HD | | | | | | |
|-------|-------|----------|-----|-----|--|--------|-------------|-------|-------|-------|-------|--------|
| RA | Dec | Name | M1 | M2 | | Number | DM | Num | RA | Dec | M | Sp |
| 09241 | +0050 | BAL1151 | 113 | 115 | | 81980 | BD- | 0 | 2201 | 9240 | - 049 | 629 A5 |
| 10071 | -6747 | BRT1982 | 124 | 126 | | 88459 | CP-67 | 1213 | 10 69 | -6748 | 80 | K2 |
| 10134 | -1251 | J 2900 | 113 | 114 | | 89336 | BD-12 | 3135 | 10133 | -1250 | 93 | G0 |
| 10402 | -5935 | HJ 4359A | 92 | 108 | | 93131 | CP-59 | 2548 | 10401 | -5936 | 671 | Oc |
| 11074 | -2044 | ARA1091 | 118 | 129 | | 97375 | BD-20 | 3371 | 11 73 | -2046 | 93 | G0 |
| 11175 | -2640 | LDS 350 | 129 | 148 | | 98843 | CD-26 | 8510 | 11174 | -2641 | 93 | F2 |
| 11180 | -5429 | HJ 4431A | 100 | 108 | | 98924 | CP-54 | 4499 | 11179 | -5428 | 100 | A0 |
| 11502 | -4939 | CPO A | 89 | 116 | | 103526 | CD-49 | 6618 | 11501 | -4938 | 91 | A5 |
| 12227 | -6112 | RST4499B | 85 | 85 | | 108500 | CP-61 | 3204 | 12227 | -6112 | 73 | G0 |
| 13449 | -2022 | ARA1101 | 120 | 129 | | 120516 | BD-20 | 3898 | 13448 | -2023 | 708 | K2 |
| 15123 | +1438 | DOO A | 101 | 103 | | 135840 | BD+14 | 2856 | 15122 | +1437 | 85 | G5 |
| 15352 | -4926 | BRT 865 | 123 | 124 | | 139809 | CD-49 | 9903 | 15351 | -4927 | 91 | F0 |
| 15359 | -6309 | HLN | 106 | 106 | | 139917 | CP-63 | 3658 | 15357 | -6311 | 98 | A0 |
| 15552 | -6840 | DDN 773 | 106 | 126 | | 143363 | CP-68 | 2608 | 15548 | -6840 | 99 | A2 |
| 16070 | -5027 | BRT 880 | 123 | 135 | | 145615 | CD-5010258 | 16 68 | -5026 | 110 | K0 | |
| 16102 | -0031 | BAL | 90 | 109 | | 146232 | BD- | 0 | 3084 | 16101 | - 033 | 98 G5 |
| 16366 | -6655 | I B | 115 | 120 | | 150549 | CP-66 | 3009 | 16366 | -6655 | 530 | A0 |
| 16419 | +0222 | J 3295 | 112 | 112 | | 151355 | BD+ | 2 | 3173 | 16418 | + 224 | 91 B8 |
| 16472 | -4136 | SEE 298A | 10 | 13 | | 152233 | CD-4111025 | 16470 | -4137 | 77 | B | |
| 16473 | -4139 | BRT 929 | 116 | 124 | | 152248 | CD-4111033 | 16471 | -4139 | 73 | B | |
| 16482 | -4914 | BRT 937 | 115 | 135 | | 152411 | CD-4911049 | 16480 | -4914 | 97 | G0 | |
| 16489 | +1535 | HEI 69 | 105 | 114 | | 152531 | BD+15 | 3072 | 16488 | +1534 | 748 | A0 |
| 16507 | -3217 | PRO 142 | 115 | 118 | | 152819 | CD-3212182 | 16506 | -3216 | 101 | A0 | |
| 16562 | -2309 | BRT1500 | 129 | 129 | | 153743 | CD-2313052 | 16561 | -23 8 | 81 | G5 | |
| 17128 | -7451 | B | 110 | 115 | | 156512 | CP-74 | 1623 | 17128 | -7452 | 923 | A0 |
| 17144 | -4148 | BRT 960 | 117 | 130 | | 156763 | CD-41111513 | 17143 | -4148 | 109 | F8 | |
| 17165 | +0209 | BAL1935 | 109 | 112 | | 157139 | BD+ | 2 | 3300 | 17164 | + 210 | 98 A2 |
| 17198 | +0906 | BRT3223 | 105 | 118 | | 157703 | BD+ | 9 | 3385 | 17197 | + 9 6 | 95 F5 |
| 17262 | -4409 | BRT 980 | 129 | 130 | | 158802 | CD-4411849 | 17261 | -44 7 | 103 | A0 | |
| 17431 | -4046 | BRT1000 | 125 | 125 | | 161876 | CD-4011882 | 17429 | -4048 | 98 | B8 | |
| 17475 | +1521 | L 16 | 100 | 105 | | 162734 | BD+15 | 3292 | 17474 | +1522 | 654 | K0 |
| 17480 | +0205 | BAL1946 | 115 | 115 | | 162830 | BD+ 2 | 3418 | 17479 | + 2 5 | 98 | A |
| 17577 | +0429 | LUY | 117 | 155 | | 164759 | BD+ 4 | 3574 | 17576 | + 427 | 95 | G5 |
| 17582 | -2230 | ARA1842 | 106 | 129 | | 164863 | BD-22 | 4541 | 17581 | -2230 | 78 | B |
| 18022 | -1925 | ARA 730 | 124 | 128 | | 165688 | BD-19 | 4854 | 18 21 | -1925 | 975 | Ob |
| 18033 | -2433 | BRT3062 | | | | 165922 | CD-2413963 | 18 32 | -2433 | 104 | B8 | |
| 18079 | -1906 | ARA 735 | 130 | 131 | | 166935 | | | 18 78 | -19 6 | 200 | Pd |
| 18085 | -1633 | J 1648 | 93 | 118 | | 167049 | | | 18 84 | -1635 | | A |
| 18121 | -1752 | ARA 275 | 107 | 134 | | 167861 | BD-17 | 5117 | 18120 | -1752 | 92 | Ma |
| 18158 | -1912 | BRT1531 | 126 | 126 | | 168644 | CP-19 | 6792 | 18157 | -1912 | 105 | B9 |
| 18171 | -1731 | J 2210 | 92 | 140 | | 168897 | BD-17 | 5167 | 18170 | -1730 | 97 | B |
| 18194 | -2149 | ARA1533 | 124 | 135 | | 169396 | BD-21 | 4989 | 18193 | -2148 | 97 | A0 |
| 18226 | -5536 | I 1113A | 97 | 112 | | 170132 | CP-55 | 8704 | 18227 | -5537 | 89 | G5 |
| 18236 | -2142 | ARA1536 | 125 | 139 | | 170299 | BD-21 | 5022 | 18235 | -2142 | 87 | A0 |
| 18406 | -1026 | J 467 | 96 | 98 | | 173498 | BD-10 | 4792 | 18405 | -1024 | 83 | K2 |
| 18431 | +1648 | J 2678 | 96 | 130 | | 229511 | | | 18430 | +1648 | 104 | F0 |
| 18449 | +2358 | POU3555 | 124 | 132 | | 174298 | BD+23 | 3465 | 18448 | +2357 | 651 | B3 |
| 18452 | +1622 | BRT1311 | 102 | 119 | | 229632 | BD+16 | 3630 | 18451 | +1622 | 105 | F8 |
| 18484 | +4019 | MLB 976 | 117 | 123 | | 174983 | BD+40 | 3505 | 18482 | +4017 | 86 | A0 |
| 18493 | -0450 | J 1838 | 105 | 107 | | 175209 | BD- 4 | 4620 | 18492 | - 451 | 975 | F8 |
| 18509 | +1146 | J 3273 | 112 | 129 | | 230066 | | | 18508 | +1148 | 118 | A3 |
| 18558 | -4551 | B C | 94 | 135 | | 176555 | CD-4512940 | 18557 | -4551 | 780 | B9 | |
| 18586 | -0013 | BAL 902 | 112 | 112 | | 177179 | BD- 0 | 3635 | 18585 | - 012 | 85 | K5 |
| 18590 | -2055 | ARA1166 | 123 | 123 | | 177292 | BD-21 | 5240 | 18589 | -2056 | 103 | K |
| 19008 | +3357 | J 1209 | 95 | 100 | | 177698 | BD+33 | 3312 | 19 07 | +3356 | 722 | K2 |

Table 8. Matches of WDS Stars Without DM Numbers With HD.

| WDS | | | | | | | HD | | | | | | |
|-------|-------|----------|-----|-----|--------|------------|-------|-------|-------|-------|-----|----|--|
| RA | Dec | Name | M1 | M2 | Number | DM | Num | RA | Dec | M | Sp | | |
| 19024 | +1845 | J 1142 | 96 | 97 | 230700 | | | 19 | 23 | +1847 | 114 | A5 | |
| 19052 | +2437 | POU3730 | 123 | 143 | 178851 | BD+24 | 3655 | 19 | 51 | +2439 | 816 | K2 | |
| 19082 | +0143 | BAL1511 | 109 | 114 | 179597 | BD+ 1 | 3930 | 19 | 81 | + 144 | 95 | A0 | |
| 19092 | +1604 | BRT1316 | 110 | 111 | 230919 | BD+15 | 3736 | 19 | 91 | +16 4 | 110 | G0 | |
| 19101 | +3444 | ES 2238 | 102 | 105 | 180053 | BD+34 | 3468 | 19 | 99 | +3444 | 81 | K0 | |
| 19108 | +1512 | J 483A | 94 | 100 | 230991 | BD+15 | 3744 | 19107 | +1513 | 115 | K5 | | |
| 19109 | -6936 | BRT2014 | 102 | 118 | 180284 | CP-69 | 2978 | 19108 | -6936 | 94 | F8 | | |
| 19110 | -2060 | ARA1176 | 128 | 132 | 180303 | BD-21 | 5321 | 19109 | -2058 | 96 | A0 | | |
| 19112 | -1916 | ARA 772 | 124 | 137 | 180365 | BD-19 | 5369 | 19111 | -1915 | 100 | F2 | | |
| 19116 | -1922 | ARA 773 | 126 | 127 | 180466 | BD-19 | 5375 | 19115 | -1923 | 872 | K0 | | |
| 19133 | -0111 | BAL 596 | 111 | 111 | 180894 | BD- 1 | 3704 | 19132 | - 112 | 98 | G0 | | |
| 19156 | -0817 | J 2544 | 95 | 97 | 181476 | BD- 8 | 4941 | 19155 | - 818 | 98 | F0 | | |
| 19206 | -1927 | ARA 783 | 129 | 142 | 182647 | BD-19 | 5451 | 19205 | -1928 | 106 | G0 | | |
| 19236 | +1607 | J 771 | 99 | 99 | 231503 | | | 19235 | +16 9 | 108 | G0 | | |
| 19240 | +0331 | HJ 2872A | 91 | 114 | 183322 | BD+ 3 | 4035 | 19239 | + 331 | 105 | K0 | | |
| 19242 | -0137 | RST5137 | 102 | 135 | 183369 | BD- 1 | 3753 | 19241 | - 136 | 79 | K2 | | |
| 19259 | +0738 | J 1181 | 100 | 120 | 183732 | BD+ 7 | 4101 | 19258 | + 739 | 90 | K0 | | |
| 19294 | +3241 | HEI A | | | 184425 | BD+32 | 3469 | 19293 | +3241 | 80 | A0 | | |
| 19308 | +2857 | MLB 654 | 106 | 108 | 184719 | BD+28 | 3399 | 19307 | +2856 | 82 | K2 | | |
| 19310 | +2448 | POU3940 | 106 | 107 | 184762 | BD+24 | 3788 | 19309 | +2449 | 88 | A0 | | |
| 19310 | -2016 | BHA 31 | 122 | 124 | 184776 | BD-20 | 5619 | 19309 | -2017 | 95 | K0 | | |
| 19314 | +1453 | J 1144 | 94 | 98 | 231938 | | | 19313 | +1453 | 108 | G0 | | |
| 19325 | +1023 | J 824 | 95 | 118 | 185086 | BD+10 | 3987 | 19324 | +1023 | 91 | F8 | | |
| 19343 | +0909 | J 2988 | 110 | 110 | 185477 | BD+ 9 | 4187 | 19342 | + 9 8 | 87 | A2 | | |
| 19376 | -0047 | J 2555 | 110 | 130 | 186125 | BD- 0 | 3822 | 19375 | - 049 | 101 | A0 | | |
| 19428 | +3239 | COU1804D | 100 | 115 | 187038 | BD+32 | 3558 | 19427 | +3238 | 618 | K2 | | |
| 19449 | +3327 | SMA | 90 | 110 | 225901 | | | 19448 | +3326 | 107 | A2 | | |
| 19453 | +0734 | J 3015A | 110 | 128 | 187506 | BD+ 7 | 4248 | 19452 | + 736 | 86 | K2 | | |
| 19557 | +3305 | SEI 769 | 105 | 110 | 226959 | | | 19556 | +33 3 | 114 | A | | |
| 19583 | +3315 | SEI 801 | 98 | 103 | 227198 | | | 19582 | +3317 | 110 | F8 | | |
| 19587 | +3324 | HO 117 | 91 | 104 | 227251 | | | 19586 | +3324 | 105 | F8 | | |
| 19595 | +3346 | SEI 822 | 92 | 110 | 227347 | | | 19594 | +3345 | 109 | A8 | | |
| 20018 | +3312 | ES 2351 | 100 | 115 | 190813 | BD+33 | 3728 | 20 | 17 | +3312 | 88 | B9 | |
| 20023 | -0017 | J 2570A | 97 | 120 | 190924 | BD+ 0 | 4420 | 20 | 22 | + 019 | 91 | A0 | |
| 20029 | -6355 | HJ 5167A | 85 | 95 | 191056 | CP-63 | 4566 | 20 | 28 | -6355 | 75 | A0 | |
| 20031 | +1724 | JEF | | | 191083 | BD+17 | 4225 | 20 | 30 | +1722 | 89 | A2 | |
| 20054 | +1818 | BRT2468 | 111 | 111 | 191532 | BD+18 | 4407 | 20 | 53 | +1818 | 91 | A | |
| 20060 | +3306 | J 1163 | 115 | 130 | 228011 | | | 20 | 59 | +33 4 | 112 | K0 | |
| 20092 | +2307 | POU4284 | 126 | 140 | 192304 | BD+23 | 3933 | 20 | 91 | +23 9 | 80 | A0 | |
| 20167 | +3821 | SEI1089A | 100 | 105 | 228969 | BD+38 | 4018 | 20165 | +3821 | 100 | B | | |
| 20346 | +2331 | POU4790 | 128 | 142 | 196820 | BD+23 | 4089 | 20347 | +2330 | 90 | A0 | | |
| 20455 | +2432 | POU5035 | 128 | 134 | 198457 | BD+24 | 4253 | 20454 | +2430 | 86 | A0 | | |
| 20598 | +0226 | BAL2044 | 106 | 111 | 200662 | BD+ 2 | 4296 | 20597 | + 224 | 85 | A0 | | |
| 21025 | +1410 | HEI 79 | 103 | 107 | 201096 | | | 21 | 24 | +1410 | G | | |
| 21086 | +2448 | POU5260 | 110 | 116 | 202070 | BD+24 | 4351 | 21 | 85 | +2447 | 80 | F8 | |
| 21138 | +0832 | LDS4877 | 78 | 175 | 202884 | BD+ 8 | 4648 | 21137 | + 832 | 740 | F5 | | |
| 21208 | +4329 | BRT1149 | 107 | 107 | 204004 | BD+43 | 3906 | 21206 | +4328 | 90 | F0 | | |
| 21358 | -4158 | BRT1122 | 128 | 131 | 206254 | CD-4215583 | 21357 | -4159 | 93 | K0 | | | |
| 21361 | +0050 | BAL1235 | 113 | 113 | 206282 | BD+ 0 | 4765 | 21360 | + 052 | 85 | F5 | | |
| 21407 | +2257 | POU5484 | 129 | 135 | 206965 | BD+22 | 4469 | 21406 | +2256 | 86 | F8 | | |
| 21415 | +2505 | L 36 | 95 | 100 | 207071 | BD+24 | 4471 | 21414 | +25 6 | 656 | B8 | | |
| 21432 | +2424 | POU5507 | 115 | 138 | 207332 | BD+24 | 4477 | 21431 | +2424 | 88 | K2 | | |
| 21523 | -7745 | DAW | 116 | 130 | 208604 | CP-77 | 1528 | 21522 | -7747 | 78 | A5 | | |
| 22061 | +1515 | J 1793 | 120 | 130 | 210553 | BD+14 | 4746 | 22 | 60 | +1513 | 829 | G0 | |
| 22161 | +5827 | STI2703 | 104 | 119 | 239923 | BD+58 | 2421 | 22158 | +5827 | 88 | B | | |

Table 8. Matches of WDS Stars Without DM Numbers With HD.

| WDS | | | | | | HD | | | | | |
|-------|-------|---------|-----|-----|--------|-------|------|-------|-------|-----|----|
| RA | Dec | Name | M1 | M2 | Number | DM | Num | RA | Dec | M | Sp |
| 22162 | +2426 | POU5695 | 117 | 125 | 212005 | BD+24 | 4580 | 22161 | +2426 | 83 | K0 |
| 22170 | +5422 | STI2710 | 116 | 121 | 212106 | BD+54 | 2741 | 22168 | +5421 | 80 | F5 |
| 22199 | +5444 | STI2744 | 121 | 125 | 235825 | BD+54 | 2758 | 22197 | +5445 | 91 | B2 |
| 22231 | +5709 | STI2780 | 106 | 115 | 239952 | BD+56 | 2777 | 22232 | +57 9 | 91 | K5 |
| 22253 | +5420 | STI2796 | 104 | 123 | 235857 | BD+54 | 2786 | 22251 | +5419 | 90 | K2 |
| 22370 | +3028 | CHE | 111 | 121 | 214979 | BD+30 | 4771 | 22369 | +3026 | 648 | K5 |
| 22522 | +1331 | J 669 | 94 | 96 | 216949 | BD+13 | 5025 | 22521 | +1329 | 778 | F0 |
| 22538 | +5530 | STI2916 | 99 | 118 | 240135 | BD+55 | 2860 | 22536 | +5531 | 90 | K7 |
| 22595 | +5703 | STI2931 | 114 | 114 | 240174 | BD+56 | 2938 | 22592 | +57 5 | 89 | K5 |
| 23115 | +5227 | HJ 3182 | 112 | 115 | 236076 | BD+52 | 3405 | 23113 | +5225 | 90 | A5 |
| 23335 | +5526 | STI3011 | 127 | 133 | 222185 | BD+55 | 2992 | 23333 | +5524 | 886 | A2 |
| 23462 | +5050 | ALD 7 | 10 | 109 | 223615 | BD+50 | 4169 | 23460 | +5051 | 79 | K0 |

Table 9. Uncertainties and Unresolved Problems.

| | | | |
|-------|-------|---------|--|
| 04194 | +2201 | STF 541 | The components appear to be A = BD +21° 642 B = BD +21° 643 |
| 05092 | -6853 | MLO | The CPD lists -68° 322 as nebulous but the star cannot be CP -68° 332, as listed in the WDS. |
| 05394 | -6909 | I 1152 | The CPD lists -69° 456 as nebulous. |
| 10492 | +4840 | ES | The right ascension is probably 10504. The precession appears to have been applied for the wrong time interval. |
| 16179 | +5149 | HU 662 | Appears to be BD +51° 2078, not +51° 2077 as given in the WDS. |
| 20211 | +2632 | BUP | The DM numbers in the WDS are inconsistent with the position angles and separation of the components. A possible, but uncertain, set of identifications is: A = BD+26° 3902 B = BD +26° 3898 D = BD+26° 3904 E = BD +25° 4238 .. |

Note: The above changes have been entered in the cross index except those for 20211 BUP.

Table 10. Multiple HD Numbers for the same DM Number not in the Cross Index.

| HD No. | DM No. | R.A. | Dec. | MV | R.A. | Dec. | System | DM No. | M |
|--------|--------|-------|--------------|-----|-------|-------|--------|--------|----------------|
| 25639 | BD+61 | 676B | 3591 +62 40 | 707 | 03590 | +6204 | HLM | 3 | BD+61 676 104 |
| 25638 | BD+61 | 676A | 3591 +62 40 | 704 | 03590 | +6204 | HLM | 3 | BD+61 676 104 |
| 25639 | BD+61 | 676B | 3591 +62 40 | 707 | 03590 | +6204 | HZG | A | BD+61 676 |
| 25638 | BD+61 | 676A | 3591 +62 40 | 704 | 03590 | +6204 | HZG | A | BD+61 676 |
| 25639 | BD+61 | 676B | 3591 +62 40 | 707 | 03590 | +6204 | SLV | BD+61 | 676 |
| 25638 | BD+61 | 676A | 3591 +62 40 | 704 | 03590 | +6204 | SLV | BD+61 | 676 |
| 25639 | BD+61 | 676B | 3591 +62 40 | 707 | 03590 | +6204 | STF | 484 | BD+61 676 100 |
| 25638 | BD+61 | 676A | 3591 +62 40 | 704 | 03590 | +6204 | STF | 484 | BD+61 676 100 |
| 17879 | BD+52 | 641B | 2472 +52210 | 406 | 02472 | +5221 | BU | A | BD+52 641 |
| 17878 | BD+52 | 641A | 2472 +52210 | 406 | 02472 | +5221 | BU | A | BD+52 641 |
| 173583 | BD+39 | 3509B | 18410 +39340 | 602 | 18410 | +3934 | SHJ | 277E | BD+39 3509 101 |
| 173582 | BD+39 | 3509A | 18410 +39340 | 506 | 18410 | +3934 | SHJ | 277E | BD+39 3509 101 |
| 186204 | BD+11 | 3955B | 19379 +11350 | 532 | 19379 | +1135 | HLM | 26A | BD+11 3955 110 |
| 186203 | BD+11 | 3955A | 19379 +11350 | 532 | 19379 | +1135 | HLM | 26A | BD+11 3955 110 |
| 12447 | BD+ 2 | 317A | 1569 + 2170 | 433 | 01569 | +0217 | PWL | A | BD+02 317 |
| 12446 | BD+ 2 | 317B | 1569 + 2170 | 523 | 01569 | +0217 | PWL | A | BD+02 317 |
| 37022 | BD- 5 | 1315C | 5304 - 5270 | 536 | 05305 | -0529 | STF | 17D | BD-05 1315 |
| 37021 | BD- 5 | 1315B | 5304 - 5270 | 793 | 05305 | -0529 | STF | 17D | BD-05 1315 |

Table 11. Changes to Positions.

| Position | Name | Field | For | Read | S |
|-------------|---------|-------|---------|---------|---|
| 00351 +3604 | COU1051 | Dec. | +36 04 | +35 54 | 8 |
| 01017 -6048 | R 5 | Dec. | -60 48 | -60 16 | 8 |
| 03225 +4040 | ES | Dec. | +40 40 | +49 40 | 7 |
| 06356 +5458 | A 1734 | Dec. | +54 58 | +53 58 | 8 |
| 07040 +6159 | ES 1080 | Dec. | +61 59 | +49 40 | 7 |
| 09339 +0225 | AG 118 | R.A. | 09 33.9 | 06 33.9 | 1 |
| 09502 -1554 | BU 592 | Dec. | -15 54 | -15 43 | 8 |
| 10127 +3037 | STF1420 | Dec. | +30 37 | +39 37 | 7 |
| 10377 +6142 | LDS2320 | R.A. | 10 37.7 | 12 38.7 | 1 |
| 12002 +5720 | A 1358 | R.A. | 12 00.2 | 12 00.5 | 7 |
| 12002 +5720 | A 1358 | Dec. | +57 20 | +57 32 | 7 |
| 12164 +2103 | KU | Dec. | +21 03 | +22 03 | 7 |
| 16207 -1816 | HLD 130 | R.A. | 16 20.7 | 16 21.7 | 8 |
| 16523 -2612 | B 324 | R.A. | 16 52.3 | 16 53.3 | 7 |
| 17554 -0552 | RST5546 | R.A. | 17 55.4 | 17 54.4 | 7 |
| 18088 +2021 | HJ 2825 | Dec. | +20 21 | +22 21 | 7 |
| 18333 +3236 | H 59 | Dec. | +32 36 | +38 36 | 7 |
| 19049 -3619 | VOU 80 | Dec. | -36 19 | -34 19 | 7 |
| 19356 +3427 | ES 2242 | R.A. | 19 35.6 | 19 36.6 | 7 |
| 19368 +3654 | STF2561 | Dec. | +36 54 | +26 54 | 8 |
| 21122 +6341 | MLB 221 | Dec. | +63 41 | +65 41 | 7 |
| 21240 -2123 | LUY | R.A. | 21 24.0 | 21 26.6 | 7 |
| 22301 +6750 | BU 706 | Dec. | +67 50 | +67 59 | 7 |
| 23037 +2342 | HO 620 | R.A. | 23 03.7 | 23 04.7 | 7 |
| 23086 -4953 | CPO | Dec. | -49 53 | -50 53 | 7 |
| 23409 +3906 | MLB 678 | Dec. | +39 06 | +30 06 | 7 |

Table 12. "Discoverer Names" Not Included in WDS 1984.0.

| R.A. | Dec. | Name |
|---------|--------|------|
| 6 24.3 | -2 44 | B |
| 12 21.0 | -62 33 | DEF |
| 14 14.6 | -41 58 | POL |
| 14 32.8 | -60 25 | RIC |
| 16 23.3 | -26 13 | GNT |

ACKNOWLEDGMENTS

We appreciate the extensive effort made by Dr. H. A. Abt to list errors in an earlier version of this cross index. Although only a few changes are attributed to him in the tables, he also noted many changes that were correctly listed in the notes to the WDS. We also appreciate the extensive cooperation of Mr. C. E. Worley. His arrangement for us to search his current WDS catalog by a computer link to the Naval Observatory was particularly helpful.

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APPENDIX A - SAMPLE LISTING

The sample listing given on the following pages contains logical data records exactly as they are recorded in the catalog files. Sample records at the beginning and the end of each data file are listed. The beginning of each record and bytes within the record are indicated by the column heading index across the top of each page (digits read vertically).

L I S T I N G O F R E C O R D S F R O M T A P E F I L E

LISTING OFFICE RECORDED FROM TAPE FILE

LISTING OF RECORDS FROM TAPE FILE

TAPE FILE NAME: WDS-DM-HD-ADS, WDS Order

RECORDS 1 TO 20

TAPE FILE 26

RECORD LENGTH 50 BYTES

INPUT VOLSER ADC004

| | | | | |
|---------|-------------------------------|-----------------|-------------|-------|
| COLUMN | 1 00000+820800053+8241STF3059 | BD+81 | 842 | 43 |
| HEADING | 2 00000+444000051+4513BU | 997ABD+44 | 4550 | 3 46 |
| INDEX | 3 00000+444000051+4513ES | 1293ABD+44 | 4550 | 46 |
| | 4 00000+294600051+3019STF3058 | BD+29 | 5059 | 4 47 |
| RECORD | 5 0001-462000051-4546B | 635 CD-4614858 | 33 | |
| RECORD | 6 0001-562100051-5547B | 2061 CP-5610218 | | |
| RECORD | 7 0002+451600053+4549STT | 547ABD+45 | 4408 | 38 48 |
| RECORD | 8 0002+451600053+4549STT | 547CBD+44 | 4548 | 48 |
| RECORD | 9 0002+350000053+3533COU | 746 BD+34 | 5062 | |
| RECORD | 10 0002+154700053+1620STT | 255ABD+15 | 4935 | 42 |
| RECORD | 11 0002+154700053+1620STT | 255BBB+15 | 4934 | 41 |
| RECORD | 12 0003+754400055+7617HJ | 3237 BD+75 | 907 | |
| RECORD | 13 0003+644000054+6513MLB | 242 BD+64 | 1896 | 45 |
| RECORD | 14 0003+495800054+5031HU | 501 BD+49 | 4329 | 37 49 |
| RECORD | 15 0003+444700054+4520ES | 1192 BD+44 | 4551 | 50 |
| RECORD | 16 0003+331500054+3348COU | 646 BD+33 | 4831 | |
| RECORD | 17 0003+333300054+3406HO | 490ABD+33 | 4832 | 39 51 |
| RECORD | 18 0003+333300054+3406HU | 1201ABD+33 | 4832 | 39 51 |
| RECORD | 19 0003-190900054-1835RST3340 | BD-19 | 6564 | 49 |
| RECORD | 20 0004+544300055+516A | 1251 BD+54 | 3108 236298 | 52 |

LISTING OF RECORDS FROM TAPE FILE

TAPE FILE NAME: WDS-PM-HD-ADS; **WDS ORDER**

卷之三

RECORDS 65448 10 65467

TAPE FILE 26

11

LENGUA 30

INPUT VOLSER ADC004

RECORD 65448 23596+565400047+57227ES 1805 RD+56 3140 23

RECORD 65449 23596+543700047+5510STI3091

RECORD 65450 23596+373700047+3810BV 862 BD+37 4930 34

RECORD 65451 23596-781800046-7744LDS 832

RECORD 65452 233597+5900000048+5933STI 1264

RECORD 65453 235597+432500048+4358A 203 BD+43 1624 225258 39

RECORD 65454 23597+364800048+3721LD53118

RECORD 65455 235597+293200048+3005A 1250 BD+29 5057 225260 40

RECORD 65456 23597-102500048+-951HU 100 BD-10 6223 225263 035

RECORD 65457 23598+65580049+6631MLR 101 BD+65 1995 225271

RECORD 65458 2335988+575800049+5831STF3057 BD+57 2855 225257 36

RECORD 65459 23598+490500049+4938ES 864 BD+48 4239 37

RECORD 65460 23598+450700049+4540BU 997 BD+44 4549 225291 41

RECORD 65461 23598+452100049+4554WYS 1

RECORD 65462 23598+260600049+2639FOX BD+25 5068 225276 42

RECORD 65463 23598-135300049-1319GAL

RECORD 65464 233598-205700049-2023LDS2081

RECORD 65465 23598-330300049-3229SEE 500 CD-3316835

RECORD 65466 23599+625000050+6323HJ 1933 BD+62 2360

RECORD 65467 235593+2052000050+21255 J 629

LISTING OF RECORDS FROM TAPE FILE

LISTING OF RECORDS FROM TAPE FILE

TAPE FILE NAME: WDS-DM-HD-ADS, Des Order
 RECORDS 65448 TO 65467
 TAPE FILE 27
 RECORD LENGTH 40 BYTES
 INPUT VOLSER ADC004

| COLUMN HEADIN INDEX | WRH | 23A19332+2907BD+29 | 3670 | 18526812696 |
|---------------------------|-------|--------------------|------------------|-----------------|
| RECORD | 65448 | | | |
| RECORD | 65449 | WRH | 24 | 16055-0950BD-09 |
| RECORD | 65450 | WRH | 25 | 16590+6943BD+69 |
| RECORD | 65451 | WRH | 26 | 16381-0756BD-07 |
| RECORD | 65452 | WYL | 22063+6332 | |
| RECORD | 65453 | WZ | 00494+0802BD+07 | 131 |
| RECORD | 65454 | WZ | 01224-0028BD-00 | 231 |
| RECORD | 65455 | WZ | 02126+5649BD+56 | 537 |
| RECORD | 65456 | WZ | 02325+4413 | 2000 |
| RECORD | 65457 | WZ | 03064+3657 | 2398 |
| RECORD | 65458 | WZ | 03241+1824BD+18 | 489 |
| RECORD | 65459 | WZ | 03473+1405BD+13 | 613 |
| RECORD | 65460 | WZ | 05310+3143BD+31 | 1027 |
| RECORD | 65461 | WZ | 06583-1633BD-16 | 1723 |
| RECORD | 65462 | WZ | 08168-0120BD-01 | 2021 |
| RECORD | 65463 | WZ | 15129+5549 | 6765 |
| RECORD | 65464 | WZ | 18559-1255 | |
| RECORD | 65465 | WZ | A05186+3446BD+34 | 1031 |
| RECORD | 65466 | WZ | C20121-1249BD-12 | 5683 |
| RECORD | 65467 | YNG | A16298+5759BD+58 | 1646 |
| | | | | 14943010109 |

LISTING OF RECORDS FROM TAPE FILE

LISTING OF RECORDS FROM TAPE FILE

TAPE FILE NAME: WDS-DM-HD-ADS, DM Order
RECORDS 45034 TO 45053
TAPE FILE 28
RECORD LENGTH 40 BYTES
INPUT VOICE SEP ADG006

| | | | | | |
|--------|-------|-------|-----|--------------------|----------------------|
| RECORD | 45034 | CP-85 | 378 | RST2844 | 13169-8522 |
| RECORD | 45035 | CP-85 | 418 | RST2922 | 14396-8530 |
| RECORD | 45036 | CP-85 | 431 | RST2936 | 14569-8552 |
| RECORD | 45037 | CP-85 | 531 | HJ 5292 | 21471-8513 |
| RECORD | 45038 | CP-85 | 549 | HJ 5368 | 22528-8504 |
| RECORD | 45039 | CP-86 | 8 | LDS | 25 00388-8558 4152 |
| RECORD | 45040 | CP-86 | 378 | HJ 5127 | 19465-8613 |
| RECORD | 45041 | CP-86 | 396 | HJ 5261 | 21285-8618205195 |
| RECORD | 45042 | CP-86 | 412 | JSP 836 | 22299-8600213943 |
| RECORD | 45043 | CP-86 | <16 | JSP 847 | 23062-8648 |
| RECORD | 45044 | CP-86 | 418 | JSP 851 | 23192-8616220522 |
| RECORD | 45045 | CP-87 | 76 | HJ 3809 | 05100-8718 |
| RECORD | 45046 | CP-87 | 106 | HJ 4010 | 07205-8712 |
| RECORD | 45047 | CP-87 | 302 | HJ 5192C20454-8727 | |
| RECORD | 45048 | CP-87 | 303 | I | 337A20454-8727198477 |
| RECORD | 45049 | CP-88 | 22 | CPO | 28 02332-8850 16477 |
| RECORD | 45050 | CP-88 | 65 | HJ 4047A06564-8852 | 52522 |
| RECORD | 45051 | CP-88 | 192 | JSP 831 | 22058-8850210531 |
| RECORD | 45052 | CP-88 | 201 | HJ 5350 | 22540-8830217208 |
| RECORD | 45053 | CP-89 | 17 | CPO | 32 04369-8930 |

LISTING OF RECORDS FROM TAPE FILE

HISTING OF RECORDED FRONT TAPE FILE

LISTING OF RECORDS FROM TAPE FILE

TAPE FILE NAME: WDS-DM-HD-ADS, ADS Order
RECORDS 1 TO 20
TAPE FILE 30
RECORD LENGTH 40 BYTES
INPUT VOLSER ADC006

| | | | | |
|--------|----|------------------------------|------|--------|
| RECORD | 1 | 1STF3053A23575+6532BD+65 | 1987 | 225009 |
| RECORD | 2 | 1STF3053B23575+6532BD+65 | 1988 | 225010 |
| RECORD | 3 | 2MLB 106A23575+5909 | | |
| RECORD | 4 | 2WAK 8C23575+5909 | | |
| RECORD | 5 | 3A 1499 23575+5501BD+54 | 3101 | 225011 |
| RECORD | 6 | 5STF3051 23576+7943BD+79 | 799 | 225020 |
| RECORD | 7 | 6HU 799 23577+7739BD+77 | 933 | |
| RECORD | 8 | 7ARG 47A23576+5924BD+59 | 2819 | 240480 |
| RECORD | 9 | 7ARG 47B23576+5924BD+59 | 2819 | 240479 |
| RECORD | 10 | 8H0 622 23576+3516BD+35 | 5159 | 225023 |
| RECORD | 11 | 9BU 281A23576+0135BD+01 | 4820 | 225028 |
| RECORD | 12 | 9HJ 998A23576+0135BD+01 | 4820 | 225028 |
| RECORD | 13 | 10A 800 23577+4642BD+46 | 4244 | 225034 |
| RECORD | 14 | 11B 632 23577-2426CD-2417956 | | 225040 |
| RECORD | 15 | 12MLB 509 23578+2811BD+27 | 4668 | |
| RECORD | 16 | 13BU 861A23579+6909BD+68 | 1422 | |
| RECORD | 17 | 14HJ 1927A23580+4434BD+44 | 4543 | 225066 |
| RECORD | 18 | 14HJ 1927B23580+4434BD+44 | 4543 | 225065 |
| RECORD | 19 | 15MLB 510 23580+2856BD+28 | 4694 | |
| RECORD | 20 | 16B 633 23582-2410CD-2417962 | | 225089 |

LISTS OF RECORDS FROM TAPE FILE

LISTING OF RECORDS FROM TAPE FILE

TAPE FILE NAME: WDS-DM-HD-ADS, Name CI
 RECORDS 1 TO 20
 TAPE FILE 31
 RECORD LENGTH 54 BYTES
 INPUT VOLSER ADC004

C O L U M N C O L U M N
C H E A D I N G C H E A D I N G
T I N D E X T I N D E X

| | | | | |
|--------|----|--------|------------|------|
| RECORD | 1 | 00372A | STT | 18 |
| RECORD | 2 | 03006A | A | 1702 |
| RECORD | 3 | 04386A | A | 2620 |
| RECORD | 4 | 04388A | A | 3006 |
| RECORD | 5 | 05380A | A | 117 |
| RECORD | 6 | 20282A | BU | 670L |
| RECORD | 7 | 20508A | BU | 367 |
| RECORD | 8 | 21399A | HDO | 167 |
| RECORD | 9 | 15095A | 15WAK | |
| RECORD | 10 | 15134A | 16VBS | |
| RECORD | 11 | 15464A | 21B | |
| RECORD | 12 | 17403A | 32HJ | 4977 |
| RECORD | 13 | 12219A | 79HJ | 210 |
| RECORD | 14 | 19168A | 102HO | 104 |
| RECORD | 15 | 05380A | 117A | |
| RECORD | 16 | 12108A | 143HJ | 846 |
| RECORD | 17 | 19230A | 159STF2527 | |
| RECORD | 18 | 19359A | 166POU4004 | |
| RECORD | 19 | 23104A | 201MRZ | |
| RECORD | 20 | 02111A | 206STF | 238 |

LISTING OF RECORDS FROM TAPE FILE

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|--------------|----------------------------|-------|--------------|---------|----------------------------|-----|----------|--------|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | day | hr mn sc | deg dg |
| day | hr | mn | sc | deg | dg | day | hr | mn | sc | deg | dg |
| 132 00:05:19 | -99.91 | 27888 | 132 00:19:38 | -73.65 | 18945 | 132 00:32:07 | -157.33 | 8386 | | | |
| 132 01:47:20 | -125.42 | 27889 | 132 02:00:52 | -98.97 | 18946 | 132 02:14:12 | 177.14 | 8387 | | | |
| 132 03:29:20 | -150.91 | 27890 | 132 03:42:05 | -124.27 | 18947 | 132 03:56:16 | 151.63 | 8388 | | | |
| 132 05:11:21 | -176.41 | 27891 | 132 05:23:18 | -149.57 | 18948 | 132 05:38:21 | 126.11 | 8389 | | | |
| 132 06:53:21 | 158.09 | 27892 | 132 07:04:31 | -174.88 | 18949 | 132 07:20:26 | 100.59 | 8390 | | | |
| 132 08:35:22 | 132.59 | 27893 | 132 08:45:44 | 159.82 | 18950 | 132 09:02:31 | 75.07 | 8391 | | | |
| 132 10:17:22 | 107.09 | 27894 | 132 10:26:57 | 134.52 | 18951 | 132 10:44:36 | 49.55 | 8392 | | | |
| 132 11:59:23 | 81.59 | 27895 | 132 12:08:11 | 109.20 | 18952 | 132 12:26:40 | 24.04 | 8393 | | | |
| 132 13:41:23 | 56.10 | 27896 | 132 13:49:24 | 83.90 | 18953 | 132 14:08:45 | -1.48 | 8394 | | | |
| 132 15:23:24 | 30.59 | 27897 | 132 15:30:37 | 58.59 | 18954 | 132 15:50:50 | -27.01 | 8395 | | | |
| 132 17:05:24 | 5.10 | 27898 | 132 17:11:50 | 33.29 | 18955 | 132 17:32:55 | -52.53 | 8396 | | | |
| 132 18:47:25 | -20.41 | 27899 | 132 18:53:03 | 7.99 | 18956 | 132 19:14:59 | -78.04 | 8397 | | | |
| 132 20:29:25 | -45.90 | 27900 | 132 20:34:17 | -17.33 | 18957 | 132 20:57:04 | -103.56 | 8398 | | | |
| 132 22:11:26 | -71.41 | 27901 | 132 22:15:30 | -42.63 | 18958 | 132 22:39:09 | -129.08 | 8399 | | | |
| 132 23:53:26 | -96.90 | 27902 | 132 23:56:43 | -67.93 | 18959 | | | | | | |
| 133 01:35:27 | -122.41 | 27903 | 133 01:37:56 | -93.24 | 18960 | 133 00:21:14 | -154.60 | 8400 | | | |
| 133 03:17:27 | -147.90 | 27904 | 133 03:19:09 | -118.54 | 18961 | 133 02:03:19 | 179.88 | 8401 | | | |
| 133 04:59:28 | -173.41 | 27905 | 133 05:00:22 | -113.84 | 18962 | 133 03:45:23 | 154.37 | 8402 | | | |
| 133 06:41:28 | 161.10 | 27906 | 133 06:41:36 | -169.16 | 18963 | 133 05:27:28 | 128.85 | 8403 | | | |
| 133 08:23:29 | 135.59 | 27907 | 133 08:22:49 | 165.54 | 18964 | 133 07:09:33 | 103.32 | 8404 | | | |
| 133 10:05:29 | 110.10 | 27908 | 133 10:04:02 | 140.23 | 18965 | 133 08:51:38 | 77.80 | 8405 | | | |
| 133 11:47:30 | 84.59 | 27909 | 133 11:45:15 | 114.93 | 18966 | 133 10:33:42 | 52.29 | 8406 | | | |
| 133 13:29:30 | 59.10 | 27910 | 133 13:26:28 | 89.63 | 18967 | 133 12:15:47 | 26.77 | 8407 | | | |
| 133 15:11:31 | 33.60 | 27911 | 133 15:07:42 | 64.31 | 18968 | 133 13:57:52 | 1.25 | 8408 | | | |
| 133 16:53:31 | 8.10 | 27912 | 133 16:48:55 | 39.01 | 18969 | 133 15:39:57 | -24.27 | 8409 | | | |
| 133 18:35:32 | -17.40 | 27913 | 133 18:30:08 | 13.71 | 18970 | 133 17:22:02 | -49.79 | 8410 | | | |
| 133 20:17:32 | -42.90 | 27914 | 133 20:11:21 | -11.60 | 18971 | 133 19:04:06 | -75.30 | 8411 | | | |
| 133 21:59:33 | -68.40 | 27915 | 133 21:52:34 | -36.90 | 18972 | 133 20:46:11 | -100.83 | 8412 | | | |
| 133 23:41:33 | -93.89 | 27916 | 133 23:33:47 | -62.20 | 18973 | 133 22:28:16 | -126.35 | 8413 | | | |
| 134 01:23:34 | -119.40 | 27917 | 134 01:15:01 | -87.52 | 18974 | 134 00:10:21 | -151.87 | 8414 | | | |
| 134 03:05:34 | -144.89 | 27918 | 134 02:56:14 | -112.82 | 18975 | 134 01:52:25 | -177.38 | 8415 | | | |
| 134 04:47:35 | -170.40 | 27919 | 134 04:37:27 | -138.13 | 18976 | 134 03:34:30 | 157.10 | 8416 | | | |
| 134 06:29:35 | 164.11 | 27920 | 134 06:18:40 | -163.43 | 18977 | 134 05:16:35 | 131.58 | 8417 | | | |
| 134 08:11:36 | 138.60 | 27921 | 134 07:59:53 | 171.27 | 18978 | 134 06:58:40 | 106.06 | 8418 | | | |
| 134 09:53:36 | 113.11 | 27922 | 134 09:41:07 | 145.95 | 18979 | 134 08:40:45 | 80.53 | 8419 | | | |
| 134 11:35:37 | 87.60 | 27923 | 134 11:22:20 | 120.65 | 18980 | 134 10:22:49 | 55.03 | 8420 | | | |
| 134 13:17:37 | 62.11 | 27924 | 134 13:03:33 | 95.35 | 18981 | 134 12:04:54 | 29.50 | 8421 | | | |
| 134 14:59:38 | 36.60 | 27925 | 134 14:44:46 | 70.04 | 18982 | 134 13:46:59 | 3.98 | 8422 | | | |
| 134 16:41:38 | 11.11 | 27926 | 134 16:25:59 | 44.74 | 18983 | 134 15:29:04 | -21.54 | 8423 | | | |
| 134 18:23:39 | -14.40 | 27927 | 134 18:07:12 | 19.44 | 18984 | 134 17:11:08 | -47.05 | 8424 | | | |
| 134 20:05:39 | -39.89 | 27928 | 134 19:48:26 | -5.88 | 18985 | 134 18:53:13 | -72.57 | 8425 | | | |
| 134 21:47:40 | -65.40 | 27929 | 134 21:29:39 | -31.18 | 18986 | 134 20:35:18 | -98.09 | 8426 | | | |
| 134 23:29:40 | -90.89 | 27930 | 134 23:10:52 | -56.49 | 18987 | 134 22:17:23 | -123.61 | 8427 | | | |
| | | | | | | 134 23:59:28 | -149.14 | 8428 | | | |
| 135 01:11:41 | -116.39 | 27931 | 135 00:52:05 | -81.79 | 18988 | 135 01:41:32 | -174.64 | 8429 | | | |
| 135 02:53:41 | -141.89 | 27932 | 135 02:33:18 | -107.09 | 18989 | 135 03:23:37 | 159.83 | 8430 | | | |
| 135 04:35:42 | -167.39 | 27933 | 135 04:14:32 | -132.41 | 18990 | 135 05:05:42 | 134.31 | 8431 | | | |
| 135 06:17:42 | 167.11 | 27934 | 135 05:55:45 | -157.71 | 18991 | 135 06:47:47 | 108.79 | 8432 | | | |
| 135 07:59:43 | 141.61 | 27935 | 135 07:36:58 | 176.99 | 18992 | 135 08:29:51 | 83.28 | 8433 | | | |
| 135 09:41:43 | 116.12 | 27936 | 135 09:18:11 | 151.68 | 18993 | 135 10:11:56 | 57.76 | 8434 | | | |
| 135 11:23:44 | 90.61 | 27937 | 135 10:59:24 | 126.38 | 18994 | 135 11:54:01 | 32.24 | 8435 | | | |
| 135 13:05:44 | 65.12 | 27938 | 135 12:40:37 | 101.08 | 18995 | 135 13:36:06 | 6.71 | 8436 | | | |
| 135 14:47:45 | 39.61 | 27939 | 135 14:21:51 | 75.76 | 18996 | 135 15:18:11 | -18.81 | 8437 | | | |
| 135 16:29:45 | 14.12 | 27940 | 135 16:03:04 | 50.46 | 18997 | 135 17:00:15 | -44.32 | 8438 | | | |
| 135 18:11:46 | -11.39 | 27941 | 135 17:44:17 | 25.16 | 18998 | 135 18:42:20 | -69.84 | 8439 | | | |
| 135 19:53:46 | -36.88 | 27942 | 135 19:25:30 | -1.15 | 18999 | 135 20:24:25 | -95.36 | 8440 | | | |
| 135 21:35:47 | -62.39 | 27943 | 135 21:06:43 | -25.45 | 19000 | 135 22:06:30 | -120.88 | 8441 | | | |
| 135 23:17:47 | -87.88 | 27944 | 135 22:47:57 | -50.77 | 19001 | 135 23:48:34 | -146.39 | 8442 | | | |

SATELLITE C3

Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 136 | 00:05:55 | -148.87 | 29563 |
| 136 | 01:50:50 | -175.22 | 29566 |
| 136 | 03:35:45 | 158.43 | 29567 |
| 136 | 05:20:39 | 132.07 | 29568 |
| 136 | 07:05:34 | 105.72 | 29569 |
| 136 | 08:50:29 | 79.36 | 29570 |
| 136 | 10:35:24 | 53.01 | 29571 |
| 136 | 12:20:19 | 26.66 | 29572 |
| 136 | 14:05:14 | .30 | 29573 |
| 136 | 15:50:08 | -26.05 | 29574 |
| 136 | 17:35:03 | -52.41 | 29575 |
| 136 | 19:19:58 | -78.76 | 29576 |
| 136 | 21:04:53 | -105.11 | 29577 |
| 136 | 22:49:48 | -131.47 | 29578 |

SATELLITE C4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | | |
|-----|----------|---------|------|
| 136 | 01:11:08 | 57.44 | 4331 |
| 136 | 02:56:02 | 31.09 | 4332 |
| 136 | 04:40:55 | 4.74 | 4333 |
| 136 | 06:25:49 | -21.61 | 4334 |
| 136 | 08:10:43 | -47.96 | 4335 |
| 136 | 09:55:37 | -74.31 | 4336 |
| 136 | 11:40:30 | -100.66 | 4337 |
| 136 | 13:25:24 | -127.01 | 4338 |
| 136 | 15:10:18 | -153.36 | 4339 |
| 136 | 16:55:12 | -179.71 | 4340 |
| 136 | 18:40:06 | 153.94 | 4341 |
| 136 | 20:24:59 | 127.59 | 4342 |
| 136 | 22:09:53 | 101.24 | 4343 |
| 136 | 23:54:47 | 74.89 | 4344 |

| | | | |
|-----|----------|---------|-------|
| 137 | 00:34:42 | -157.82 | 29579 |
| 137 | 02:19:37 | 175.82 | 29580 |
| 137 | 04:04:32 | 149.47 | 29581 |
| 137 | 05:49:27 | 123.12 | 29582 |
| 137 | 07:34:22 | 96.76 | 29583 |
| 137 | 09:19:17 | 70.41 | 29584 |
| 137 | 11:04:11 | 44.05 | 29585 |
| 137 | 12:49:06 | 17.70 | 29586 |
| 137 | 14:34:01 | -8.65 | 29587 |
| 137 | 16:18:56 | -35.01 | 29588 |
| 137 | 18:03:51 | -61.36 | 29589 |
| 137 | 19:48:45 | -87.72 | 29590 |
| 137 | 21:33:40 | -114.07 | 29591 |
| 137 | 23:18:35 | -140.42 | 29592 |

| | | | |
|-----|----------|---------|------|
| 137 | 01:39:41 | 48.54 | 4345 |
| 137 | 03:24:34 | 22.19 | 4346 |
| 137 | 05:09:28 | -4.16 | 4347 |
| 137 | 06:54:22 | -30.51 | 4348 |
| 137 | 08:39:16 | -56.85 | 4349 |
| 137 | 10:24:10 | -83.20 | 4350 |
| 137 | 12:09:03 | -109.55 | 4351 |
| 137 | 13:53:57 | -135.90 | 4352 |
| 137 | 15:38:51 | -162.25 | 4353 |
| 137 | 17:23:45 | 171.40 | 4354 |
| 137 | 19:08:38 | 145.05 | 4355 |
| 137 | 20:53:32 | 118.70 | 4356 |
| 137 | 22:38:26 | 92.35 | 4357 |

| | | | |
|-----|----------|---------|-------|
| 138 | 01:03:30 | -166.78 | 29593 |
| 138 | 02:48:25 | 166.87 | 29594 |
| 138 | 04:33:20 | 140.52 | 29595 |
| 138 | 06:18:14 | 114.16 | 29596 |
| 138 | 08:03:09 | 87.81 | 29597 |
| 138 | 09:48:04 | 61.45 | 29598 |
| 138 | 11:32:59 | 35.10 | 29599 |
| 138 | 13:17:54 | 8.75 | 29600 |
| 138 | 15:02:48 | -17.61 | 29601 |
| 138 | 16:47:43 | -43.96 | 29602 |
| 138 | 18:32:38 | -70.32 | 29603 |
| 138 | 20:17:33 | -96.67 | 29604 |
| 138 | 22:02:28 | -123.02 | 29605 |
| 138 | 23:47:23 | -149.38 | 29606 |

| | | | |
|-----|----------|---------|------|
| 138 | 00:23:20 | 66.00 | 4358 |
| 138 | 02:08:13 | 39.65 | 4359 |
| 138 | 03:53:07 | 13.30 | 4360 |
| 138 | 05:38:01 | -13.05 | 4361 |
| 138 | 07:22:55 | -39.40 | 4362 |
| 138 | 09:07:49 | -65.75 | 4363 |
| 138 | 10:52:42 | -92.10 | 4364 |
| 138 | 12:37:36 | -118.45 | 4365 |
| 138 | 14:22:30 | -144.80 | 4366 |
| 138 | 16:07:24 | -171.14 | 4367 |
| 138 | 17:52:17 | 162.50 | 4368 |
| 138 | 19:37:11 | 136.15 | 4369 |
| 138 | 21:22:05 | 109.81 | 4370 |
| 138 | 23:06:59 | 83.46 | 4371 |

| | | | |
|-----|----------|---------|-------|
| 139 | 01:32:17 | -175.73 | 29607 |
| 139 | 03:17:12 | 157.91 | 29608 |
| 139 | 05:02:07 | 131.56 | 29609 |
| 139 | 06:47:02 | 105.21 | 29610 |
| 139 | 08:31:57 | 78.85 | 29611 |
| 139 | 10:16:51 | 52.50 | 29612 |
| 139 | 12:01:46 | 26.15 | 29613 |
| 139 | 13:46:41 | -.21 | 29614 |
| 139 | 15:31:36 | -26.56 | 29615 |
| 139 | 17:16:31 | -52.92 | 29616 |
| 139 | 19:01:26 | -79.27 | 29617 |
| 139 | 20:46:20 | -105.62 | 29618 |
| 139 | 22:31:15 | -131.98 | 29619 |

| | | | |
|-----|----------|---------|------|
| 139 | 00:51:52 | 57.11 | 4372 |
| 139 | 02:36:46 | 30.76 | 4373 |
| 139 | 04:21:40 | 4.41 | 4374 |
| 139 | 06:06:34 | -21.94 | 4375 |
| 139 | 07:51:28 | -48.29 | 4376 |
| 139 | 09:36:21 | -74.64 | 4377 |
| 139 | 11:21:15 | -100.99 | 4378 |
| 139 | 13:06:09 | -127.34 | 4379 |
| 139 | 14:51:03 | -153.69 | 4380 |
| 139 | 16:35:56 | 179.96 | 4381 |
| 139 | 18:20:50 | 153.61 | 4382 |
| 139 | 20:05:44 | 127.26 | 4383 |
| 139 | 21:50:38 | 100.91 | 4384 |
| 139 | 23:35:31 | 74.56 | 4385 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 136 00:59:48 | -113.39 | 27945 |
| 136 02:41:48 | -138.88 | 27946 |
| 136 04:23:49 | -164.39 | 27947 |
| 136 06:05:49 | 170.12 | 27948 |
| 136 07:47:50 | 144.61 | 27949 |
| 136 09:29:50 | 119.12 | 27950 |
| 136 11:11:51 | 93.62 | 27951 |
| 136 12:53:51 | 68.12 | 27952 |
| 136 14:35:52 | 42.62 | 27953 |
| 136 16:17:52 | -17.12 | 27954 |
| 136 17:59:53 | -8.38 | 27955 |
| 136 19:41:53 | -33.88 | 27956 |
| 136 21:23:54 | -59.38 | 27957 |
| 136 23:05:54 | -84.87 | 27958 |

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 136 00:29:10 | -76.07 | 19002 |
| 136 02:10:23 | -101.37 | 19003 |
| 136 03:51:36 | -126.68 | 19004 |
| 136 05:32:49 | -151.98 | 19005 |
| 136 07:14:03 | -177.30 | 19006 |
| 136 08:55:16 | 157.40 | 19007 |
| 136 10:36:29 | 132.10 | 19008 |
| 136 12:17:42 | 106.80 | 19009 |
| 136 13:58:55 | 81.49 | 19010 |
| 136 15:40:08 | 56.19 | 19011 |
| 136 17:21:22 | 30.87 | 19012 |
| 136 19:02:35 | 5.57 | 19013 |
| 136 20:43:48 | -19.73 | 19014 |
| 136 22:25:01 | -45.04 | 19015 |

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 136 01:30:39 | -171.91 | 8443 |
| 136 03:12:44 | 162.57 | 8444 |
| 136 04:54:49 | 137.04 | 8445 |
| 136 06:36:53 | 111.54 | 8446 |
| 136 08:18:58 | 86.01 | 8447 |
| 136 10:01:03 | 60.49 | 8448 |
| 136 11:43:08 | 34.97 | 8449 |
| 136 13:25:13 | 9.45 | 8450 |
| 136 15:07:17 | -16.06 | 8451 |
| 136 16:49:22 | -41.58 | 8452 |
| 136 18:31:27 | -67.10 | 8453 |
| 136 20:13:32 | -92.63 | 8454 |
| 136 21:55:36 | -118.14 | 8455 |
| 136 23:37:41 | -143.66 | 8456 |

| | | |
|--------------|---------|-------|
| 137 00:47:55 | -110.38 | 27959 |
| 137 02:29:55 | -135.87 | 27960 |
| 137 04:11:56 | -161.38 | 27961 |
| 137 05:53:56 | 173.13 | 27962 |
| 137 07:35:57 | 147.62 | 27963 |
| 137 09:17:57 | 122.13 | 27964 |
| 137 10:59:58 | 96.62 | 27965 |
| 137 12:41:58 | 71.13 | 27966 |
| 137 14:23:58 | 45.64 | 27967 |
| 137 16:05:59 | 20.13 | 27968 |
| 137 17:47:59 | -3.36 | 27969 |
| 137 19:30:00 | -30.87 | 27970 |
| 137 21:12:00 | -56.36 | 27971 |
| 137 22:54:01 | -81.87 | 27972 |

| | | |
|--------------|---------|-------|
| 137 00:06:14 | -70.34 | 19016 |
| 137 01:47:28 | -95.66 | 19017 |
| 137 03:28:41 | -120.96 | 19018 |
| 137 05:09:54 | -146.26 | 19019 |
| 137 06:51:07 | -171.56 | 19020 |
| 137 08:32:20 | 163.13 | 19021 |
| 137 10:13:33 | 137.83 | 19022 |
| 137 11:54:47 | 112.51 | 19023 |
| 137 13:36:00 | 87.21 | 19024 |
| 137 15:17:13 | 61.91 | 19025 |
| 137 16:58:26 | 36.60 | 19026 |
| 137 18:39:39 | 11.30 | 19027 |
| 137 20:20:53 | -14.01 | 19028 |
| 137 22:02:06 | -39.32 | 19029 |
| 137 23:43:19 | -64.62 | 19030 |

| | | |
|--------------|---------|------|
| 137 01:19:46 | -169.18 | 8457 |
| 137 03:01:51 | 165.30 | 8458 |
| 137 04:43:56 | 139.78 | 8459 |
| 137 06:26:00 | 114.27 | 8460 |
| 137 08:08:05 | 88.75 | 8461 |
| 137 09:50:10 | 63.22 | 8462 |
| 137 11:32:15 | 37.70 | 8463 |
| 137 13:14:19 | 12.19 | 8464 |
| 137 14:56:24 | -13.33 | 8465 |
| 137 16:38:29 | -38.85 | 8466 |
| 137 18:20:34 | -64.37 | 8467 |
| 137 20:02:39 | -89.89 | 8468 |
| 137 21:44:43 | -115.40 | 8469 |
| 137 23:26:48 | -140.92 | 8470 |

| | | |
|--------------|---------|-------|
| 138 00:36:01 | -107.36 | 27973 |
| 138 02:18:02 | -132.87 | 27974 |
| 138 04:00:02 | -158.36 | 27975 |
| 138 05:42:03 | 176.13 | 27976 |
| 138 07:24:03 | 150.64 | 27977 |
| 138 09:06:04 | 125.14 | 27978 |
| 138 10:48:04 | 99.64 | 27979 |
| 138 12:30:05 | 74.14 | 27980 |
| 138 14:12:05 | 48.64 | 27981 |
| 138 15:54:06 | 23.14 | 27982 |
| 138 17:36:06 | -2.36 | 27983 |
| 138 19:18:07 | -27.86 | 27984 |
| 138 21:00:07 | -53.35 | 27985 |
| 138 22:42:08 | -78.86 | 27986 |

| | | |
|--------------|---------|-------|
| 138 01:24:32 | -89.92 | 19031 |
| 138 03:05:45 | -115.23 | 19032 |
| 138 04:46:58 | -140.53 | 19033 |
| 138 06:28:12 | -165.85 | 19034 |
| 138 08:09:25 | 168.85 | 19035 |
| 138 09:50:38 | 143.55 | 19036 |
| 138 11:31:51 | 118.24 | 19037 |
| 138 13:13:04 | 92.94 | 19038 |
| 138 14:54:18 | 67.63 | 19039 |
| 138 16:35:31 | 42.32 | 19040 |
| 138 18:16:44 | 17.02 | 19041 |
| 138 19:57:57 | -8.28 | 19042 |
| 138 21:39:10 | -33.59 | 19043 |
| 138 23:20:23 | -58.89 | 19044 |

| | | |
|--------------|---------|------|
| 138 01:08:53 | -166.45 | 8471 |
| 138 02:50:58 | 168.03 | 8472 |
| 138 04:33:02 | 142.52 | 8473 |
| 138 06:15:07 | 117.00 | 8474 |
| 138 07:57:12 | 91.48 | 8475 |
| 138 09:39:17 | 65.96 | 8476 |
| 138 11:21:22 | 40.44 | 8477 |
| 138 13:03:26 | 14.93 | 8478 |
| 138 14:45:31 | -10.59 | 8479 |
| 138 16:27:36 | -36.12 | 8480 |
| 138 18:09:41 | -61.64 | 8481 |
| 138 19:51:45 | -87.15 | 8482 |
| 138 21:33:50 | -112.67 | 8483 |
| 138 23:15:55 | -138.19 | 8484 |

| | | |
|--------------|---------|-------|
| 139 00:24:08 | -104.35 | 27987 |
| 139 02:06:09 | -129.86 | 27988 |
| 139 03:48:09 | -155.35 | 27989 |
| 139 05:30:10 | 179.14 | 27990 |
| 139 07:12:10 | 153.65 | 27991 |
| 139 08:54:11 | 128.14 | 27992 |
| 139 10:36:11 | 102.65 | 27993 |
| 139 12:18:12 | 77.14 | 27994 |
| 139 14:00:12 | 51.65 | 27995 |
| 139 15:42:13 | 26.14 | 27996 |
| 139 17:24:13 | .65 | 27997 |
| 139 19:06:14 | -24.86 | 27998 |
| 139 20:48:14 | -50.33 | 27999 |
| 139 22:30:15 | -75.85 | 28000 |

| | | |
|--------------|---------|-------|
| 139 01:01:37 | -84.21 | 19045 |
| 139 02:42:50 | -109.51 | 19046 |
| 139 04:24:03 | -134.81 | 19047 |
| 139 06:05:16 | -160.11 | 19048 |
| 139 07:46:29 | 174.58 | 19049 |
| 139 09:27:43 | 149.27 | 19050 |
| 139 11:08:56 | 123.96 | 19051 |
| 139 12:50:09 | 98.66 | 19052 |
| 139 14:31:22 | 73.36 | 19053 |
| 139 16:12:35 | 48.05 | 19054 |
| 139 17:53:48 | 22.75 | 19055 |
| 139 19:35:02 | -2.57 | 19056 |
| 139 21:16:15 | -27.87 | 19057 |
| 139 22:57:28 | -53.17 | 19058 |

| | | |
|--------------|---------|------|
| 139 00:58:00 | -163.71 | 8485 |
| 139 02:40:05 | 170.76 | 8486 |
| 139 04:22:09 | 145.26 | 8487 |
| 139 06:04:14 | 119.73 | 8488 |
| 139 07:46:19 | 94.21 | 8489 |
| 139 09:28:24 | 68.69 | 8490 |
| 139 11:10:28 | 43.18 | 8491 |
| 139 12:52:33 | 17.66 | 8492 |
| 139 14:34:38 | -7.86 | 8493 |
| 139 16:16:43 | -33.38 | 8494 |
| 139 17:58:47 | -58.89 | 8495 |
| 139 19:40:52 | -84.41 | 8496 |
| 139 21:22:57 | -109.94 | 8497 |
| 139 23:05:02 | -135.46 | 8498 |

SATELLITE C3
Ascending Node Predictions

Predicting for 186 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 140 00:16:10 | -158.33 | 29620 |
| 140 02:01:05 | 175.32 | 29621 |
| 140 03:46:00 | 148.96 | 29622 |
| 140 05:30:54 | 122.61 | 29623 |
| 140 07:15:49 | 96.25 | 29624 |
| 140 09:00:44 | 69.90 | 29625 |
| 140 10:45:39 | 43.55 | 29626 |
| 140 12:30:34 | 17.19 | 29627 |
| 140 14:15:29 | -9.16 | 29628 |
| 140 16:00:23 | -35.52 | 29629 |
| 140 17:45:18 | -61.87 | 29630 |
| 140 19:30:13 | -88.22 | 29631 |
| 140 21:15:08 | -114.58 | 29632 |
| 140 23:00:03 | -140.93 | 29633 |

SATELLITE C4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 140 01:20:25 | 48.21 | 4386 |
| 140 03:05:19 | 21.86 | 4387 |
| 140 04:50:13 | -4.48 | 4388 |
| 140 06:35:06 | -30.84 | 4389 |
| 140 08:20:00 | -57.19 | 4390 |
| 140 10:04:54 | -83.53 | 4391 |
| 140 11:49:48 | -109.88 | 4392 |
| 140 13:34:42 | -136.23 | 4393 |
| 140 15:19:35 | -162.58 | 4394 |
| 140 17:04:29 | 171.07 | 4395 |
| 140 18:49:23 | 144.72 | 4396 |
| 140 20:34:17 | 118.37 | 4397 |
| 140 22:19:10 | 92.02 | 4398 |

| | | |
|--------------|---------|-------|
| 141 00:44:37 | -167.29 | 29634 |
| 141 02:29:52 | 166.36 | 29635 |
| 141 04:14:47 | 140.01 | 29636 |
| 141 05:59:42 | 113.65 | 29637 |
| 141 07:44:37 | 87.30 | 29638 |
| 141 09:29:32 | 60.95 | 29639 |
| 141 11:14:26 | 34.59 | 29640 |
| 141 12:59:21 | 8.24 | 29641 |
| 141 14:44:16 | -18.12 | 29642 |
| 141 16:29:11 | -44.47 | 29643 |
| 141 18:14:06 | -70.82 | 29644 |
| 141 19:59:00 | -97.18 | 29645 |
| 141 21:43:55 | -123.53 | 29646 |
| 141 23:28:50 | -149.89 | 29647 |

| | | |
|--------------|---------|------|
| 141 00:04:04 | 65.67 | 4399 |
| 141 01:48:58 | 39.32 | 4400 |
| 141 03:33:52 | 12.97 | 4401 |
| 141 05:18:45 | -13.38 | 4402 |
| 141 07:03:39 | -39.73 | 4403 |
| 141 08:48:33 | -66.08 | 4404 |
| 141 10:33:27 | -92.43 | 4405 |
| 141 12:18:21 | -118.78 | 4406 |
| 141 14:03:14 | -145.13 | 4407 |
| 141 15:48:08 | -171.48 | 4408 |
| 141 17:33:02 | 162.18 | 4409 |
| 141 19:17:56 | 135.83 | 4410 |
| 141 21:02:49 | 109.48 | 4411 |
| 141 22:47:43 | 83.13 | 4412 |

| | | |
|--------------|---------|-------|
| 142 01:13:45 | -176.24 | 29648 |
| 142 02:58:40 | 157.41 | 29649 |
| 142 04:43:35 | 131.05 | 29650 |
| 142 06:28:29 | 104.70 | 29651 |
| 142 08:13:24 | 78.34 | 29652 |
| 142 09:58:19 | 51.99 | 29653 |
| 142 11:43:14 | 25.64 | 29654 |
| 142 13:28:09 | -.72 | 29655 |
| 142 15:13:03 | -27.07 | 29656 |
| 142 16:57:58 | -53.43 | 29657 |
| 142 18:42:53 | -79.78 | 29658 |
| 142 20:27:48 | -106.13 | 29659 |
| 142 22:12:43 | -132.49 | 29660 |
| 142 23:57:37 | -158.84 | 29661 |

| | | |
|--------------|---------|------|
| 142 00:32:37 | 56.78 | 4413 |
| 142 02:17:31 | 30.43 | 4414 |
| 142 04:02:24 | 4.08 | 4415 |
| 142 05:47:18 | -22.27 | 4416 |
| 142 07:32:12 | -48.62 | 4417 |
| 142 09:17:06 | -74.97 | 4418 |
| 142 11:01:59 | -101.32 | 4419 |
| 142 12:46:53 | -127.67 | 4420 |
| 142 14:31:47 | -154.02 | 4421 |
| 142 16:16:41 | 179.63 | 4422 |
| 142 18:01:35 | 153.28 | 4423 |
| 142 19:46:28 | 126.93 | 4424 |
| 142 21:31:22 | 100.58 | 4425 |
| 142 23:16:16 | 74.23 | 4426 |

| | | |
|--------------|---------|-------|
| 143 01:42:32 | 174.80 | 29662 |
| 143 03:27:27 | 148.45 | 29663 |
| 143 05:12:22 | 122.10 | 29664 |
| 143 06:57:17 | 95.74 | 29665 |
| 143 08:42:12 | 69.39 | 29666 |
| 143 10:27:06 | 43.03 | 29667 |
| 143 12:12:01 | 16.68 | 29668 |
| 143 13:56:56 | -9.67 | 29669 |
| 143 15:41:51 | -36.03 | 29670 |
| 143 17:26:46 | -62.38 | 29671 |
| 143 19:11:40 | -88.74 | 29672 |
| 143 20:56:35 | -115.09 | 29673 |
| 143 22:41:30 | -141.44 | 29674 |

| | | |
|--------------|---------|------|
| 143 01:01:10 | 47.89 | 4427 |
| 143 02:46:03 | 21.53 | 4428 |
| 143 04:30:57 | -4.82 | 4429 |
| 143 06:15:51 | -31.16 | 4430 |
| 143 08:00:45 | -57.51 | 4431 |
| 143 09:45:38 | -83.86 | 4432 |
| 143 11:30:32 | -110.21 | 4433 |
| 143 13:15:26 | -136.36 | 4434 |
| 143 15:00:20 | -162.91 | 4435 |
| 143 16:45:13 | 170.74 | 4436 |
| 143 18:30:07 | 144.39 | 4437 |
| 143 20:15:01 | 118.04 | 4438 |
| 143 21:59:55 | 91.69 | 4439 |
| 143 23:44:48 | 65.34 | 4440 |

SATELLITE S2
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 140 00:12:15 | -101.35 | 28001 |
| 140 01:54:16 | -126.85 | 28002 |
| 140 03:36:16 | -152.35 | 28003 |
| 140 05:18:17 | -177.85 | 28004 |
| 140 07:00:17 | 156.65 | 28005 |
| 140 08:42:18 | 131.15 | 28006 |
| 140 10:24:18 | 105.66 | 28007 |
| 140 12:06:19 | 80.15 | 28008 |
| 140 13:48:19 | 54.66 | 28009 |
| 140 15:30:20 | 29.15 | 28010 |
| 140 17:12:20 | 3.66 | 28011 |
| 140 18:54:21 | -21.85 | 28012 |
| 140 20:36:21 | -47.34 | 28013 |
| 140 22:18:22 | -72.85 | 28014 |

SATELLITE S3
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 140 00:38:41 | -78.47 | 19059 |
| 140 02:19:54 | -103.78 | 19060 |
| 140 04:01:08 | -129.09 | 19061 |
| 140 05:42:21 | -154.40 | 19062 |
| 140 07:23:34 | -179.70 | 19063 |
| 140 09:04:47 | 155.00 | 19064 |
| 140 10:46:00 | 129.69 | 19065 |
| 140 12:27:13 | 104.39 | 19066 |
| 140 14:08:27 | 79.07 | 19067 |
| 140 15:49:40 | 53.77 | 19068 |
| 140 17:30:53 | 28.47 | 19069 |
| 140 19:12:06 | 3.17 | 19070 |
| 140 20:53:19 | -22.14 | 19071 |
| 140 22:34:33 | -47.45 | 19072 |

SATELLITE S4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 140 00:47:07 | -160.98 | 8499 |
| 140 02:29:11 | 173.51 | 8500 |
| 140 04:11:16 | 147.99 | 8501 |
| 140 05:53:21 | 122.47 | 8502 |
| 140 07:35:26 | 96.95 | 8503 |
| 140 09:17:30 | 71.44 | 8504 |
| 140 10:59:35 | 45.91 | 8505 |
| 140 12:41:40 | 20.39 | 8506 |
| 140 14:23:45 | -5.13 | 8507 |
| 140 16:05:50 | -30.65 | 8508 |
| 140 17:47:54 | -56.16 | 8509 |
| 140 19:29:59 | -81.68 | 8510 |
| 140 21:12:04 | -107.20 | 8511 |
| 140 22:54:09 | -132.73 | 8512 |

| | | |
|--------------|---------|-------|
| 141 00:00:22 | -98.34 | 28015 |
| 141 01:42:23 | -123.85 | 28016 |
| 141 03:24:23 | -149.34 | 28017 |
| 141 05:06:24 | -174.85 | 28018 |
| 141 06:48:24 | 159.66 | 28019 |
| 141 08:30:25 | 134.16 | 28020 |
| 141 10:12:25 | 108.66 | 28021 |
| 141 11:54:26 | 83.16 | 28022 |
| 141 13:36:26 | 57.66 | 28023 |
| 141 15:18:27 | 32.16 | 28024 |
| 141 17:00:27 | 6.66 | 28025 |
| 141 18:42:28 | -18.84 | 28026 |
| 141 20:24:28 | -44.33 | 28027 |
| 141 22:06:29 | -69.84 | 28028 |
| 141 23:48:29 | -95.33 | 28029 |

| | | |
|--------------|---------|-------|
| 141 00:15:46 | -72.76 | 19073 |
| 141 01:56:59 | -98.06 | 19074 |
| 141 03:38:12 | -123.36 | 19075 |
| 141 05:19:25 | -148.67 | 19076 |
| 141 07:00:38 | -173.97 | 19077 |
| 141 08:41:52 | 160.72 | 19078 |
| 141 10:23:05 | 135.41 | 19079 |
| 141 12:04:18 | 110.11 | 19080 |
| 141 13:45:31 | 84.81 | 19081 |
| 141 15:26:44 | 59.50 | 19082 |
| 141 17:07:58 | 34.19 | 19083 |
| 141 18:49:11 | 8.88 | 19084 |
| 141 20:30:24 | -16.42 | 19085 |
| 141 22:11:37 | -41.72 | 19086 |
| 141 23:52:50 | -67.03 | 19087 |

| | | |
|--------------|---------|------|
| 141 00:36:13 | -158.23 | 8513 |
| 141 02:18:18 | 176.24 | 8514 |
| 141 04:00:23 | 150.72 | 8515 |
| 141 05:42:28 | 125.20 | 8516 |
| 141 07:24:33 | 99.68 | 8517 |
| 141 09:06:37 | 74.17 | 8518 |
| 141 10:48:42 | 48.65 | 8519 |
| 141 12:30:47 | 23.13 | 8520 |
| 141 14:12:52 | -2.40 | 8521 |
| 141 15:54:56 | -27.90 | 8522 |
| 141 17:37:01 | -53.43 | 8523 |
| 141 19:19:06 | -78.95 | 8524 |
| 141 21:01:11 | -104.47 | 8525 |
| 141 22:43:16 | -129.99 | 8526 |

| | | |
|--------------|---------|-------|
| 142 01:30:30 | -120.84 | 28030 |
| 142 03:12:30 | -146.33 | 28031 |
| 142 04:54:31 | -171.84 | 28032 |
| 142 06:36:31 | 162.67 | 28033 |
| 142 08:18:32 | 137.16 | 28034 |
| 142 10:00:32 | 111.67 | 28035 |
| 142 11:42:33 | 86.16 | 28036 |
| 142 13:24:33 | 60.67 | 28037 |
| 142 15:06:34 | 35.16 | 28038 |
| 142 16:48:34 | 9.67 | 28039 |
| 142 18:30:35 | -15.84 | 28040 |
| 142 20:12:35 | -41.33 | 28041 |
| 142 21:54:36 | -66.83 | 28042 |
| 142 23:36:36 | -92.33 | 28043 |

| | | |
|--------------|---------|-------|
| 142 01:34:04 | -92.34 | 19088 |
| 142 03:15:17 | -117.64 | 19089 |
| 142 04:56:30 | -142.95 | 19090 |
| 142 06:37:43 | -168.25 | 19091 |
| 142 08:18:56 | 166.45 | 19092 |
| 142 10:00:09 | 141.14 | 19093 |
| 142 11:41:23 | 115.83 | 19094 |
| 142 13:22:36 | 90.52 | 19095 |
| 142 15:03:49 | 65.22 | 19096 |
| 142 16:45:02 | 39.92 | 19097 |
| 142 18:26:15 | 14.62 | 19098 |
| 142 20:07:29 | -10.70 | 19099 |
| 142 21:48:42 | -36.00 | 19100 |
| 142 23:29:55 | -61.31 | 19101 |

| | | |
|--------------|---------|------|
| 142 00:25:20 | -155.50 | 8527 |
| 142 02:07:25 | 178.98 | 8528 |
| 142 03:49:30 | 153.45 | 8529 |
| 142 05:31:35 | 127.93 | 8530 |
| 142 07:13:39 | 102.42 | 8531 |
| 142 08:55:44 | 76.90 | 8532 |
| 142 10:37:49 | 51.38 | 8533 |
| 142 12:19:54 | 25.86 | 8534 |
| 142 14:01:59 | .34 | 8535 |
| 142 15:44:03 | -25.17 | 8536 |
| 142 17:26:08 | -50.69 | 8537 |
| 142 19:08:13 | -76.22 | 8538 |
| 142 20:50:18 | -101.74 | 8539 |
| 142 22:32:22 | -127.25 | 8540 |

| | | |
|--------------|---------|-------|
| 143 01:18:37 | -117.83 | 28044 |
| 143 03:00:37 | -143.33 | 28045 |
| 143 04:42:38 | -168.83 | 28046 |
| 143 06:24:38 | 165.67 | 28047 |
| 143 08:06:39 | 140.17 | 28048 |
| 143 09:48:39 | 114.68 | 28049 |
| 143 11:30:40 | 89.17 | 28050 |
| 143 13:12:40 | 63.68 | 28051 |
| 143 14:54:41 | 38.17 | 28052 |
| 143 16:36:41 | 12.68 | 28053 |
| 143 18:18:42 | -12.83 | 28054 |
| 143 20:00:42 | -38.32 | 28055 |
| 143 21:42:43 | -63.83 | 28056 |
| 143 23:24:43 | -89.32 | 28057 |

| | | |
|--------------|---------|-------|
| 143 01:11:08 | -86.61 | 19102 |
| 143 02:52:21 | -111.91 | 19103 |
| 143 04:33:34 | -137.22 | 19104 |
| 143 06:14:48 | -162.53 | 19105 |
| 143 07:56:01 | 172.16 | 19106 |
| 143 09:37:14 | 146.86 | 19107 |
| 143 11:18:27 | 121.56 | 19108 |
| 143 12:59:40 | 96.26 | 19109 |
| 143 14:40:54 | 70.94 | 19110 |
| 143 16:22:07 | 45.64 | 19111 |
| 143 18:03:20 | 20.33 | 19112 |
| 143 19:44:33 | -4.97 | 19113 |
| 143 21:25:46 | -30.27 | 19114 |
| 143 23:06:59 | -55.58 | 19115 |

| | | |
|--------------|---------|------|
| 143 00:14:27 | -152.77 | 8541 |
| 143 01:56:32 | -178.29 | 8542 |
| 143 03:38:37 | 156.19 | 8543 |
| 143 05:20:41 | 130.68 | 8544 |
| 143 07:02:46 | 105.16 | 8545 |
| 143 08:44:51 | 79.64 | 8546 |
| 143 10:26:56 | 54.11 | 8547 |
| 143 12:09:01 | 28.59 | 8548 |
| 143 13:51:05 | 3.08 | 8549 |
| 143 15:33:10 | -22.44 | 8550 |
| 143 17:15:15 | -47.96 | 8551 |
| 143 18:57:20 | -73.48 | 8552 |
| 143 20:39:24 | -98.99 | 8553 |
| 143 22:21:29 | -124.51 | 8554 |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 144 00:26:25 | -167.80 | 29675 |
| 144 02:11:20 | 165.85 | 29676 |
| 144 03:56:15 | 139.50 | 29677 |
| 144 05:41:09 | 113.14 | 29678 |
| 144 07:26:04 | 86.79 | 29679 |
| 144 09:10:59 | 60.43 | 29680 |
| 144 10:55:54 | 34.08 | 29681 |
| 144 12:40:49 | 7.73 | 29682 |
| 144 14:25:43 | -18.63 | 29683 |
| 144 16:10:38 | -44.98 | 29684 |
| 144 17:55:33 | -71.33 | 29685 |
| 144 19:40:28 | -97.69 | 29686 |
| 144 21:25:23 | -124.04 | 29687 |
| 144 23:10:17 | -150.40 | 29688 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 144 01:29:42 | 38.99 | 4441 |
| 144 03:14:36 | 12.64 | 4442 |
| 144 04:59:30 | -13.71 | 4443 |
| 144 06:44:24 | -40.06 | 4444 |
| 144 08:29:17 | -66.41 | 4445 |
| 144 10:14:11 | -92.76 | 4446 |
| 144 11:59:05 | -119.11 | 4447 |
| 144 13:43:59 | -145.45 | 4448 |
| 144 15:28:52 | -171.81 | 4449 |
| 144 17:13:46 | 161.85 | 4450 |
| 144 18:58:40 | 135.50 | 4451 |
| 144 20:43:34 | 109.15 | 4452 |
| 144 22:28:27 | 82.80 | 4453 |

| | | |
|--------------|---------|-------|
| 145 00:53:12 | -176.75 | 29689 |
| 145 02:40:07 | 156.90 | 29690 |
| 145 04:25:02 | 130.54 | 29691 |
| 145 06:09:57 | 104.19 | 29692 |
| 145 07:54:52 | 77.84 | 29693 |
| 145 09:39:46 | 51.48 | 29694 |
| 145 11:24:41 | 25.13 | 29695 |
| 145 13:09:36 | -1.23 | 29696 |
| 145 14:54:31 | -27.58 | 29697 |
| 145 16:39:26 | -53.93 | 29698 |
| 145 18:24:20 | -80.29 | 29699 |
| 145 20:09:15 | -106.64 | 29700 |
| 145 21:54:10 | -133.00 | 29701 |
| 145 23:39:05 | -159.35 | 29702 |

| | | |
|--------------|---------|------|
| 145 00:13:21 | 56.45 | 4454 |
| 145 01:58:15 | 30.10 | 4455 |
| 145 03:43:09 | 3.75 | 4456 |
| 145 05:28:02 | -22.60 | 4457 |
| 145 07:12:56 | -48.95 | 4458 |
| 145 08:57:50 | -75.30 | 4459 |
| 145 10:42:44 | -101.65 | 4460 |
| 145 12:27:37 | -128.00 | 4461 |
| 145 14:12:31 | -154.35 | 4462 |
| 145 15:57:25 | 179.30 | 4463 |
| 145 17:42:19 | 152.95 | 4464 |
| 145 19:27:13 | 126.61 | 4465 |
| 145 21:12:06 | 100.25 | 4466 |
| 145 22:57:00 | 73.90 | 4467 |

| | | |
|--------------|---------|-------|
| 146 01:24:00 | 174.30 | 29703 |
| 146 03:08:55 | 147.94 | 29704 |
| 146 04:53:49 | 121.59 | 29705 |
| 146 06:38:44 | 95.23 | 29706 |
| 146 08:23:39 | 68.88 | 29707 |
| 146 10:08:34 | 42.53 | 29708 |
| 146 11:53:29 | 16.17 | 29709 |
| 146 13:38:23 | -10.18 | 29710 |
| 146 15:23:18 | -36.54 | 29711 |
| 146 17:08:13 | -62.89 | 29712 |
| 146 18:53:08 | -89.24 | 29713 |
| 146 20:38:03 | -115.60 | 29714 |
| 146 22:22:57 | -141.95 | 29715 |

| | | |
|--------------|---------|------|
| 146 00:41:54 | 47.56 | 4468 |
| 146 02:26:48 | 21.21 | 4469 |
| 146 04:11:41 | -5.14 | 4470 |
| 146 05:56:35 | -31.49 | 4471 |
| 146 07:41:29 | -57.84 | 4472 |
| 146 09:26:23 | -84.19 | 4473 |
| 146 11:11:16 | -110.54 | 4474 |
| 146 12:56:10 | -136.89 | 4475 |
| 146 14:41:04 | -163.24 | 4476 |
| 146 16:25:58 | 170.41 | 4477 |
| 146 18:10:51 | 144.06 | 4478 |
| 146 19:55:45 | 117.71 | 4479 |
| 146 21:40:39 | 91.36 | 4480 |
| 146 23:25:33 | 65.01 | 4481 |

| | | |
|--------------|---------|-------|
| 147 00:07:52 | -168.31 | 29716 |
| 147 01:52:47 | 165.34 | 29717 |
| 147 03:37:42 | 138.99 | 29718 |
| 147 05:22:37 | 112.63 | 29719 |
| 147 07:07:32 | 86.28 | 29720 |
| 147 08:52:26 | 59.92 | 29721 |
| 147 10:37:21 | 33.57 | 29722 |
| 147 12:22:16 | 7.22 | 29723 |
| 147 14:07:11 | -19.14 | 29724 |
| 147 15:52:06 | -45.49 | 29725 |
| 147 17:37:00 | -71.85 | 29726 |
| 147 19:21:55 | -98.20 | 29727 |
| 147 21:06:50 | -124.55 | 29728 |
| 147 22:51:45 | -150.91 | 29729 |

| | | |
|--------------|---------|------|
| 147 01:10:26 | 38.66 | 4482 |
| 147 02:55:20 | 12.31 | 4483 |
| 147 04:40:14 | -14.04 | 4484 |
| 147 06:25:08 | -40.38 | 4485 |
| 147 08:10:01 | -66.74 | 4486 |
| 147 09:54:55 | -93.09 | 4487 |
| 147 11:39:49 | -119.43 | 4488 |
| 147 13:24:43 | -145.78 | 4489 |
| 147 15:09:36 | -172.13 | 4490 |
| 147 16:54:30 | 161.52 | 4491 |
| 147 18:39:24 | 135.17 | 4492 |
| 147 20:24:18 | 108.82 | 4493 |
| 147 22:09:12 | 82.47 | 4494 |
| 147 23:54:05 | 56.12 | 4495 |

SATELLITE S2
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 144 | 01:06:44 | -114.83 | 28058 |
| 144 | 02:48:44 | -140.32 | 28059 |
| 144 | 04:30:45 | -165.83 | 28060 |
| 144 | 06:12:45 | 168.68 | 28061 |
| 144 | 07:54:46 | 143.17 | 28062 |
| 144 | 09:36:46 | 117.68 | 28063 |
| 144 | 11:18:47 | 92.18 | 28064 |
| 144 | 13:00:47 | 66.68 | 28065 |
| 144 | 14:42:48 | 41.18 | 28066 |
| 144 | 16:24:48 | 15.68 | 28067 |
| 144 | 18:06:49 | -9.82 | 28068 |
| 144 | 19:48:49 | -35.32 | 28069 |
| 144 | 21:30:50 | -60.82 | 28070 |
| 144 | 23:12:50 | -86.31 | 28071 |

SATELLITE S3
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 144 | 00:48:13 | -80.89 | 19116 |
| 144 | 02:29:26 | -106.20 | 19117 |
| 144 | 04:10:39 | -131.50 | 19118 |
| 144 | 05:51:52 | -156.80 | 19119 |
| 144 | 07:33:05 | 177.90 | 19120 |
| 144 | 09:14:19 | 152.58 | 19121 |
| 144 | 10:55:32 | 127.28 | 19122 |
| 144 | 12:36:45 | 101.97 | 19123 |
| 144 | 14:17:58 | 76.67 | 19124 |
| 144 | 15:59:11 | 51.37 | 19125 |
| 144 | 17:40:24 | 26.06 | 19126 |
| 144 | 19:21:38 | -75 | 19127 |
| 144 | 21:02:51 | -24.55 | 19128 |
| 144 | 22:44:04 | -49.86 | 19129 |

SATELLITE S4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|------|
| 144 | 00:03:34 | -150.04 | 8555 |
| 144 | 01:45:39 | -175.56 | 8556 |
| 144 | 03:27:44 | 158.92 | 8557 |
| 144 | 05:09:48 | 133.41 | 8558 |
| 144 | 06:51:53 | 107.89 | 8559 |
| 144 | 08:33:58 | 82.37 | 8560 |
| 144 | 10:16:03 | 56.85 | 8561 |
| 144 | 11:58:07 | 31.34 | 8562 |
| 144 | 13:40:12 | 5.82 | 8563 |
| 144 | 15:22:17 | -19.71 | 8564 |
| 144 | 17:04:22 | -45.23 | 8565 |
| 144 | 18:46:27 | -70.75 | 8566 |
| 144 | 20:28:31 | -96.26 | 8567 |
| 144 | 22:10:36 | -121.78 | 8568 |
| 144 | 23:52:41 | -147.30 | 8569 |

| | | | |
|-----|----------|---------|-------|
| 145 | 00:54:51 | -111.82 | 28072 |
| 145 | 02:36:51 | -137.31 | 28073 |
| 145 | 04:18:52 | -162.82 | 28074 |
| 145 | 06:00:52 | 171.69 | 28075 |
| 145 | 07:42:53 | 146.18 | 28076 |
| 145 | 09:24:53 | 120.69 | 28077 |
| 145 | 11:06:54 | 95.18 | 28078 |
| 145 | 12:48:54 | 69.69 | 28079 |
| 145 | 14:30:55 | 44.18 | 28080 |
| 145 | 16:12:55 | 18.69 | 28081 |
| 145 | 17:54:56 | -6.82 | 28082 |
| 145 | 19:36:56 | -32.31 | 28083 |
| 145 | 21:18:57 | -57.82 | 28084 |
| 145 | 23:00:57 | -83.31 | 28085 |

| | | | |
|-----|----------|---------|-------|
| 145 | 00:25:17 | -75.16 | 19130 |
| 145 | 02:06:30 | -100.46 | 19131 |
| 145 | 03:47:44 | -125.78 | 19132 |
| 145 | 05:28:57 | -151.08 | 19133 |
| 145 | 07:10:10 | -176.39 | 19134 |
| 145 | 08:51:23 | 158.31 | 19135 |
| 145 | 10:32:36 | 133.01 | 19136 |
| 145 | 12:13:50 | 107.69 | 19137 |
| 145 | 13:55:03 | 82.39 | 19138 |
| 145 | 15:36:16 | 57.09 | 19139 |
| 145 | 17:17:29 | 31.78 | 19140 |
| 145 | 18:58:42 | 6.48 | 19141 |
| 145 | 20:39:55 | -18.82 | 19142 |
| 145 | 22:21:09 | -44.14 | 19143 |

| | | | |
|-----|----------|---------|------|
| 145 | 01:34:46 | -172.82 | 8570 |
| 145 | 03:16:50 | 161.67 | 8571 |
| 145 | 04:58:55 | 136.14 | 8572 |
| 145 | 06:41:00 | 110.62 | 8573 |
| 145 | 08:23:05 | 85.10 | 8574 |
| 145 | 10:05:10 | 59.58 | 8575 |
| 145 | 11:47:14 | 34.07 | 8576 |
| 145 | 13:29:19 | 8.55 | 8577 |
| 145 | 15:11:24 | -16.97 | 8578 |
| 145 | 16:53:29 | -42.50 | 8579 |
| 145 | 18:35:33 | -68.00 | 8580 |
| 145 | 20:17:38 | -93.53 | 8581 |
| 145 | 21:59:43 | -119.05 | 8582 |
| 145 | 23:41:48 | -144.57 | 8583 |

| | | | |
|-----|----------|---------|-------|
| 146 | 00:42:58 | -108.82 | 28086 |
| 146 | 02:24:58 | -134.31 | 28087 |
| 146 | 04:06:59 | -159.81 | 28088 |
| 146 | 05:48:59 | 174.69 | 28089 |
| 146 | 07:30:59 | 149.20 | 28090 |
| 146 | 09:13:00 | 123.69 | 28091 |
| 146 | 10:55:00 | 98.20 | 28092 |
| 146 | 12:37:01 | 72.69 | 28093 |
| 146 | 14:19:01 | 47.20 | 28094 |
| 146 | 16:01:02 | 21.70 | 28095 |
| 146 | 17:43:02 | -3.80 | 28096 |
| 146 | 19:25:03 | -29.30 | 28097 |
| 146 | 21:07:03 | -54.80 | 28098 |
| 146 | 22:49:04 | -80.30 | 28099 |

| | | | |
|-----|----------|---------|-------|
| 146 | 00:02:22 | -69.44 | 19144 |
| 146 | 01:43:35 | -94.75 | 19145 |
| 146 | 03:24:48 | -120.05 | 19146 |
| 146 | 05:06:01 | -145.35 | 19147 |
| 146 | 06:47:15 | -170.67 | 19148 |
| 146 | 08:28:28 | 164.03 | 19149 |
| 146 | 10:09:41 | 138.73 | 19150 |
| 146 | 11:50:54 | 113.42 | 19151 |
| 146 | 13:32:07 | 88.12 | 19152 |
| 146 | 15:13:20 | 62.82 | 19153 |
| 146 | 16:54:34 | 37.50 | 19154 |
| 146 | 18:35:47 | 12.20 | 19155 |
| 146 | 20:17:00 | -13.11 | 19156 |
| 146 | 21:58:13 | -38.41 | 19157 |
| 146 | 23:39:26 | -63.71 | 19158 |

| | | | |
|-----|----------|---------|------|
| 146 | 01:23:53 | -170.09 | 8584 |
| 146 | 03:05:57 | 164.40 | 8585 |
| 146 | 04:48:02 | 138.88 | 8586 |
| 146 | 06:30:07 | 113.36 | 8587 |
| 146 | 08:12:12 | 87.83 | 8588 |
| 146 | 09:54:16 | 62.33 | 8589 |
| 146 | 11:36:21 | 36.80 | 8590 |
| 146 | 13:18:26 | 11.28 | 8591 |
| 146 | 15:00:31 | -14.24 | 8592 |
| 146 | 16:42:35 | -39.75 | 8593 |
| 146 | 18:24:40 | -65.27 | 8594 |
| 146 | 20:06:45 | -90.79 | 8595 |
| 146 | 21:48:50 | -116.31 | 8596 |
| 146 | 23:30:55 | -141.84 | 8597 |

| | | | |
|-----|----------|---------|-------|
| 147 | 00:31:04 | -105.80 | 28100 |
| 147 | 02:13:05 | -131.30 | 28101 |
| 147 | 03:55:05 | -156.79 | 28102 |
| 147 | 05:37:06 | 177.70 | 28103 |
| 147 | 07:19:06 | 152.21 | 28104 |
| 147 | 09:01:07 | 126.70 | 28105 |
| 147 | 10:43:07 | 101.21 | 28106 |
| 147 | 12:25:08 | 75.70 | 28107 |
| 147 | 14:07:08 | 50.21 | 28108 |
| 147 | 15:49:09 | 24.70 | 28109 |
| 147 | 17:31:09 | -7.79 | 28110 |
| 147 | 19:13:10 | -26.30 | 28111 |
| 147 | 20:55:10 | -51.79 | 28112 |
| 147 | 22:37:11 | -77.30 | 28113 |

| | | | |
|-----|----------|---------|-------|
| 147 | 01:20:40 | -89.03 | 19159 |
| 147 | 03:01:53 | -114.33 | 19160 |
| 147 | 04:43:06 | -139.63 | 19161 |
| 147 | 06:24:19 | -164.94 | 19162 |
| 147 | 08:05:32 | 169.76 | 19163 |
| 147 | 09:46:45 | 144.46 | 19164 |
| 147 | 11:27:59 | 119.14 | 19165 |
| 147 | 13:09:12 | 93.84 | 19166 |
| 147 | 14:50:25 | 68.54 | 19167 |
| 147 | 16:31:38 | 43.23 | 19168 |
| 147 | 18:12:51 | 17.93 | 19169 |
| 147 | 19:54:05 | -7.39 | 19170 |
| 147 | 21:35:18 | -32.69 | 19171 |
| 147 | 23:16:31 | -57.99 | 19172 |

| | | | |
|-----|----------|---------|------|
| 147 | 01:12:59 | -167.35 | 8598 |
| 147 | 02:55:04 | 167.13 | 8599 |
| 147 | 04:37:09 | 141.61 | 8600 |
| 147 | 06:19:14 | 116.09 | 8601 |
| 147 | 08:01:18 | 90.58 | 8602 |
| 147 | 09:43:23 | 65.06 | 8603 |
| 147 | 11:25:28 | 39.54 | 8604 |
| 147 | 13:07:33 | 14.01 | 8605 |
| 147 | 14:49:38 | -11.51 | 8606 |
| 147 | 16:31:42 | -37.02 | 8607 |
| 147 | 18:13:47 | -62.54 | 8608 |
| 147 | 19:55:52 | -88.06 | 8609 |
| 147 | 21:37:57 | -113.58 | 8610 |
| 147 | 23:20:01 | -139.09 | 8611 |

| SATELLITE C3 | | | | | | SATELLITE C4 | | | | | |
|----------------------------|---------|-------|--------------|------------|------|----------------------------|-------|-----|----|-----|----|
| Ascending Node Predictions | | | | | | Ascending Node Predictions | | | | | |
| Predicting for 186 days | | | | | | Predicting for 184 days | | | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | day | hr | mn | sc |
| day | hr | mn | sc | deg | dg | deg | dg | deg | dg | deg | dg |
| 148 00:36:40 | -177.26 | 29730 | 148 01:38:59 | 29.77 | 4496 | | | | | | |
| 148 02:21:34 | 156.39 | 29731 | 148 03:23:53 | 3.42 | 4497 | | | | | | |
| 148 04:06:29 | 130.03 | 29732 | 148 05:08:47 | -22.93 | 4498 | | | | | | |
| 148 05:51:24 | 103.68 | 29733 | 148 06:53:40 | -49.28 | 4499 | | | | | | |
| 148 07:36:19 | 77.32 | 29734 | 148 08:38:34 | -75.63 | 4500 | | | | | | |
| 148 09:21:14 | 50.97 | 29735 | 148 10:23:28 | -101.98 | 4501 | | | | | | |
| 148 11:06:09 | 24.62 | 29736 | 148 12:08:22 | -128.33 | 4502 | | | | | | |
| 148 12:51:03 | -1.74 | 29737 | 148 13:33:15 | -154.68 | 4503 | | | | | | |
| 148 14:35:58 | -28.09 | 29738 | 148 15:38:09 | 178.97 | 4504 | | | | | | |
| 148 16:20:53 | -54.44 | 29739 | 148 17:23:03 | 152.63 | 4505 | | | | | | |
| 148 18:05:48 | -80.80 | 29740 | 148 19:07:57 | 126.28 | 4506 | | | | | | |
| 148 19:50:43 | -107.15 | 29741 | 148 20:52:50 | 99.93 | 4507 | | | | | | |
| 148 21:35:37 | -133.51 | 29742 | 148 22:37:44 | 73.58 | 4508 | | | | | | |
| 148 23:20:32 | -159.86 | 29743 | | | | | | | | | |
| 149 01:05:27 | 173.79 | 29744 | 149 00:22:38 | 47.23 | 4509 | | | | | | |
| 149 02:50:22 | 147.43 | 29745 | 149 02:07:32 | 20.88 | 4510 | | | | | | |
| 149 04:35:17 | 121.08 | 29746 | 149 03:52:25 | -5.47 | 4511 | | | | | | |
| 149 06:20:12 | 94.73 | 29747 | 149 05:37:19 | -31.82 | 4512 | | | | | | |
| 149 08:05:06 | 68.37 | 29748 | 149 07:22:13 | -58.17 | 4513 | | | | | | |
| 149 09:50:01 | 42.02 | 29749 | 149 09:07:07 | -84.52 | 4514 | | | | | | |
| 149 11:34:56 | 15.66 | 29750 | 149 10:52:00 | -110.87 | 4515 | | | | | | |
| 149 13:19:51 | -10.69 | 29751 | 149 12:36:54 | -137.22 | 4516 | | | | | | |
| 149 15:04:46 | -37.04 | 29752 | 149 14:21:48 | -163.57 | 4517 | | | | | | |
| 149 16:49:40 | -63.40 | 29753 | 149 16:06:42 | 170.08 | 4518 | | | | | | |
| 149 18:34:35 | -89.75 | 29754 | 149 17:51:35 | 143.73 | 4519 | | | | | | |
| 149 20:19:30 | -116.11 | 29755 | 149 19:36:29 | 117.38 | 4520 | | | | | | |
| 149 22:04:25 | -142.46 | 29756 | 149 21:21:23 | 91.03 | 4521 | | | | | | |
| 149 23:49:20 | -168.81 | 29757 | 149 23:06:17 | 64.69 | 4522 | | | | | | |
| 150 01:34:14 | 164.83 | 29758 | 150 00:51:10 | 38.33 | 4523 | | | | | | |
| 150 03:19:09 | 138.48 | 29759 | 150 02:36:04 | 11.98 | 4524 | | | | | | |
| 150 05:04:04 | 112.12 | 29760 | 150 04:20:58 | -14.36 | 4525 | | | | | | |
| 150 06:48:59 | 85.77 | 29761 | 150 06:05:52 | -40.71 | 4526 | | | | | | |
| 150 08:33:54 | 59.42 | 29762 | 150 07:50:45 | -67.06 | 4527 | | | | | | |
| 150 10:18:49 | 33.06 | 29763 | 150 09:35:39 | -93.41 | 4528 | | | | | | |
| 150 12:03:43 | 6.71 | 29764 | 150 11:20:33 | -119.76 | 4529 | | | | | | |
| 150 13:48:38 | -19.65 | 29765 | 150 13:05:27 | -146.11 | 4530 | | | | | | |
| 150 15:33:33 | -86.00 | 29766 | 150 14:50:20 | -172.46 | 4531 | | | | | | |
| 150 17:18:28 | -72.35 | 29767 | 150 16:35:14 | 161.19 | 4532 | | | | | | |
| 150 19:03:23 | -98.71 | 29768 | 150 18:20:08 | 134.84 | 4533 | | | | | | |
| 150 20:48:17 | -125.06 | 29769 | 150 20:05:02 | 108.49 | 4534 | | | | | | |
| 150 22:33:12 | -151.42 | 29770 | 150 21:49:56 | 82.14 | 4535 | | | | | | |
| | | | 150 23:34:49 | 55.79 | 4536 | | | | | | |
| 151 00:18:07 | -177.77 | 29771 | 151 01:19:43 | 29.44 | 4537 | | | | | | |
| 151 02:03:02 | 155.88 | 29772 | 151 03:04:37 | 3.09 | 4538 | | | | | | |
| 151 03:47:57 | 129.52 | 29773 | 151 04:49:31 | -23.25 | 4539 | | | | | | |
| 151 05:32:51 | 103.17 | 29774 | 151 06:34:24 | -49.61 | 4540 | | | | | | |
| 151 07:17:46 | 76.81 | 29775 | 151 08:19:18 | -75.96 | 4541 | | | | | | |
| 151 09:02:41 | 50.46 | 29776 | 151 10:04:12 | -102.30 | 4542 | | | | | | |
| 151 10:47:36 | 24.11 | 29777 | 151 11:49:06 | -128.65 | 4543 | | | | | | |
| 151 12:32:31 | -2.25 | 29778 | 151 13:33:59 | -155.00 | 4544 | | | | | | |
| 151 14:17:26 | -28.60 | 29779 | 151 15:18:53 | 178.65 | 4545 | | | | | | |
| 151 16:02:20 | -54.95 | 29780 | 151 17:03:47 | 152.30 | 4546 | | | | | | |
| 151 17:47:15 | -81.31 | 29781 | 151 18:48:41 | 125.95 | 4547 | | | | | | |
| 151 19:32:10 | -107.66 | 29782 | 151 20:33:34 | 99.60 | 4548 | | | | | | |
| 151 21:17:05 | -134.01 | 29783 | 151 22:18:28 | 73.25 | 4549 | | | | | | |
| 151 23:02:00 | -160.37 | 29784 | | | | | | | | | |

West longitude is negative (-)

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|--|----------------------------|---------|-------|--|----------------------------|---------|-------|--|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E LONG | ORBIT | | TIME (GMT) | E LONG | ORBIT | | TIME (GMT) | E LONG | ORBIT | |
| day hr mn sc | deg dg | | | day hr mn sc | deg dg | | | day hr mn sc | deg dg | | |
| 148 00:19:11 | -102.79 | 28114 | | 148 00:57:44 | -83.30 | 19173 | | 148 01:02:06 | -164.61 | 8612 | |
| 148 02:01:12 | -128.30 | 28115 | | 148 02:38:57 | -108.60 | 19174 | | 148 02:44:11 | 169.87 | 8613 | |
| 148 03:43:12 | -153.79 | 28116 | | 148 04:20:10 | -133.90 | 19175 | | 148 04:26:16 | 144.34 | 8614 | |
| 148 05:25:13 | -179.29 | 28117 | | 148 06:01:24 | -159.22 | 19176 | | 148 06:08:21 | 118.82 | 8615 | |
| 148 07:07:13 | -155.21 | 28118 | | 148 07:42:37 | 175.48 | 19177 | | 148 07:50:25 | 93.31 | 8616 | |
| 148 08:49:14 | 129.71 | 28119 | | 148 09:23:50 | 150.18 | 19178 | | 148 09:32:30 | 67.79 | 8617 | |
| 148 10:31:14 | 104.21 | 28120 | | 148 11:05:03 | 124.87 | 19179 | | 148 11:14:35 | 42.27 | 8618 | |
| 148 12:13:15 | 78.71 | 28121 | | 148 12:46:16 | 99.57 | 19180 | | 148 12:56:40 | 16.75 | 8619 | |
| 148 13:55:15 | 53.21 | 28122 | | 148 14:27:30 | 74.25 | 19181 | | 148 14:38:44 | -8.76 | 8620 | |
| 148 15:37:16 | 27.71 | 28123 | | 148 16:08:43 | 48.95 | 19182 | | 148 16:20:49 | -34.28 | 8621 | |
| 148 17:19:16 | 2.21 | 28124 | | 148 17:49:56 | 23.65 | 19183 | | 148 18:02:54 | -59.81 | 8622 | |
| 148 19:01:17 | -23.29 | 28125 | | 148 19:31:09 | -1.66 | 19184 | | 148 19:44:59 | -85.33 | 8623 | |
| 148 20:43:17 | -48.78 | 28126 | | 148 21:12:22 | -26.96 | 19185 | | 148 21:27:04 | -110.85 | 8624 | |
| 148 22:25:18 | -74.29 | 28127 | | 148 22:53:36 | -52.27 | 19186 | | 148 23:09:08 | -136.36 | 8625 | |
| 149 00:07:18 | -99.78 | 28128 | | 149 00:34:49 | -77.58 | 19187 | | 149 00:51:13 | -161.88 | 8626 | |
| 149 01:49:19 | -125.29 | 28129 | | 149 02:16:02 | -102.88 | 19188 | | 149 02:33:18 | 172.60 | 8627 | |
| 149 03:31:19 | -150.78 | 28130 | | 149 03:57:15 | -128.18 | 19189 | | 149 04:15:23 | 147.08 | 8628 | |
| 149 05:13:20 | -176.29 | 28131 | | 149 05:38:28 | -153.49 | 19190 | | 149 05:57:27 | 121.57 | 8629 | |
| 149 06:55:20 | 158.22 | 28132 | | 149 07:19:41 | -178.79 | 19191 | | 149 07:39:32 | 96.05 | 8630 | |
| 149 08:37:21 | 132.71 | 28133 | | 149 09:00:55 | 155.89 | 19192 | | 149 09:21:37 | 70.52 | 8631 | |
| 149 10:19:21 | 107.22 | 28134 | | 149 10:42:08 | 130.59 | 19193 | | 149 11:03:42 | 45.00 | 8632 | |
| 149 12:01:22 | 81.71 | 28135 | | 149 12:23:21 | 105.29 | 19194 | | 149 12:45:47 | 19.48 | 8633 | |
| 149 13:43:22 | 56.22 | 28136 | | 149 14:04:34 | 79.98 | 19195 | | 149 14:27:51 | -6.03 | 8634 | |
| 149 15:25:23 | 30.71 | 28137 | | 149 15:45:47 | 54.68 | 19196 | | 149 16:09:56 | -31.55 | 8635 | |
| 149 17:07:23 | 5.22 | 28138 | | 149 17:27:01 | 29.37 | 19197 | | 149 17:52:01 | -57.07 | 8636 | |
| 149 18:49:24 | -20.29 | 28139 | | 149 19:08:14 | 4.06 | 19198 | | 149 19:34:06 | -82.59 | 8637 | |
| 149 20:31:24 | -45.78 | 28140 | | 149 20:49:27 | -21.24 | 19199 | | 149 21:16:10 | -108.10 | 8638 | |
| 149 22:13:25 | -71.28 | 28141 | | 149 22:30:40 | -46.54 | 19200 | | 149 22:58:15 | -133.62 | 8639 | |
| 150 01:37:26 | -122.28 | 28143 | | 150 00:11:53 | -71.85 | 19201 | | 150 00:40:20 | -159.15 | 8640 | |
| 150 03:19:26 | -147.78 | 28144 | | 150 01:53:06 | -97.15 | 19202 | | 150 02:22:25 | 175.33 | 8641 | |
| 150 05:01:27 | -173.28 | 28145 | | 150 03:34:20 | -122.47 | 19203 | | 150 04:04:30 | 149.81 | 8642 | |
| 150 06:43:27 | 161.22 | 28146 | | 150 05:15:33 | -147.77 | 19204 | | 150 05:46:34 | 124.30 | 8643 | |
| 150 08:25:28 | 135.72 | 28147 | | 150 06:56:46 | -173.07 | 19205 | | 150 07:28:39 | 98.78 | 8644 | |
| 150 10:07:28 | 110.23 | 28148 | | 150 08:37:59 | 161.63 | 19206 | | 150 09:10:44 | 73.26 | 8645 | |
| 150 11:49:29 | 84.72 | 28149 | | 150 10:19:12 | 136.32 | 19207 | | 150 10:52:49 | 47.73 | 8646 | |
| 150 13:31:29 | 59.23 | 28150 | | 150 12:00:26 | 111.01 | 19208 | | 150 12:34:53 | 22.23 | 8647 | |
| 150 15:13:30 | 33.72 | 28151 | | 150 13:41:39 | 85.70 | 19209 | | 150 14:16:58 | -3.30 | 8648 | |
| 150 16:55:30 | 8.23 | 28152 | | 150 15:22:52 | 60.40 | 19210 | | 150 15:59:03 | -28.82 | 8649 | |
| 150 18:37:31 | -17.28 | 28153 | | 150 17:04:05 | 35.10 | 19211 | | 150 17:41:08 | -54.34 | 8650 | |
| 150 20:19:31 | -42.77 | 28154 | | 150 18:45:18 | 9.79 | 19212 | | 150 19:23:12 | -79.85 | 8651 | |
| 150 22:01:32 | -68.28 | 28155 | | 150 20:26:32 | -15.52 | 19213 | | 150 21:05:17 | -105.37 | 8652 | |
| 150 23:43:32 | -93.77 | 28156 | | 150 22:07:45 | -40.83 | 19214 | | 150 22:47:22 | -130.89 | 8653 | |
| 150 00:23:32 | -119.26 | 28157 | | 150 23:48:58 | -66.13 | 19215 | | | | | |
| 151 01:23:32 | -144.77 | 28158 | | 151 01:30:11 | -91.43 | 19216 | | 151 00:29:27 | -156.41 | 8654 | |
| 151 04:49:33 | -170.26 | 28159 | | 151 03:11:24 | -116.73 | 19217 | | 151 02:11:32 | 178.06 | 8655 | |
| 151 06:31:34 | 164.23 | 28160 | | 151 04:52:37 | -142.04 | 19218 | | 151 03:53:36 | 152.56 | 8656 | |
| 151 08:13:34 | 138.74 | 28161 | | 151 06:33:51 | -167.35 | 19219 | | 151 05:35:41 | 127.03 | 8657 | |
| 151 09:55:35 | 113.23 | 28162 | | 151 08:15:04 | 167.34 | 19220 | | 151 07:17:46 | 101.51 | 8658 | |
| 151 11:37:35 | 87.74 | 28163 | | 151 09:56:17 | 142.04 | 19221 | | 151 08:59:51 | 75.99 | 8659 | |
| 151 13:19:36 | 62.23 | 28164 | | 151 11:37:30 | 116.74 | 19222 | | 151 10:41:55 | 50.48 | 8660 | |
| 151 15:01:36 | 36.74 | 28165 | | 151 13:18:43 | 91.43 | 19223 | | 151 12:24:00 | 24.96 | 8661 | |
| 151 16:43:37 | 11.23 | 28166 | | 151 14:59:57 | 66.12 | 19224 | | 151 14:06:05 | -56 | 8662 | |
| 151 18:25:37 | -14.26 | 28167 | | 151 16:41:10 | 40.82 | 19225 | | 151 15:48:10 | -26.08 | 8663 | |
| 151 20:07:38 | -39.77 | 28168 | | 151 18:22:23 | 15.51 | 19226 | | 151 17:30:15 | -51.61 | 8664 | |
| 151 21:49:38 | -65.26 | 28169 | | 151 20:03:36 | -9.79 | 19227 | | 151 19:12:19 | -77.12 | 8665 | |
| 151 23:31:39 | -90.77 | 28170 | | 151 21:44:49 | -35.09 | 19228 | | 151 20:54:24 | -102.64 | 8666 | |
| | | | | 151 23:26:02 | -60.40 | 19229 | | 151 22:36:29 | -128.16 | 8667 | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 152 00:46:54 | 173.28 | 29785 |
| 152 02:31:49 | 146.92 | 29786 |
| 152 04:16:44 | 120.57 | 29787 |
| 152 06:01:39 | 94.22 | 29788 |
| 152 07:46:34 | 67.86 | 29789 |
| 152 09:31:28 | 41.51 | 29790 |
| 152 11:16:23 | 15.15 | 29791 |
| 152 13:01:18 | -11.20 | 29792 |
| 152 14:46:13 | -37.55 | 29793 |
| 152 16:31:08 | -63.91 | 29794 |
| 152 18:16:03 | -90.26 | 29795 |
| 152 20:00:57 | -116.62 | 29796 |
| 152 21:45:52 | -142.97 | 29797 |
| 152 23:30:47 | -169.32 | 29798 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 152 00:03:22 | 46.90 | 4550 |
| 152 01:48:16 | 20.55 | 4551 |
| 152 03:33:09 | -5.80 | 4552 |
| 152 05:18:03 | -32.15 | 4553 |
| 152 07:02:57 | -58.50 | 4554 |
| 152 08:47:51 | -84.85 | 4555 |
| 152 10:32:44 | -111.20 | 4556 |
| 152 12:17:38 | -137.55 | 4557 |
| 152 14:02:32 | -163.89 | 4558 |
| 152 15:47:26 | 169.76 | 4559 |
| 152 17:32:19 | 143.40 | 4560 |
| 152 19:17:13 | 117.06 | 4561 |
| 152 21:02:07 | 90.71 | 4562 |
| 152 22:47:01 | 64.36 | 4563 |

| | | |
|--------------|---------|-------|
| 153 01:15:42 | 164.32 | 29799 |
| 153 03:00:37 | 137.97 | 29800 |
| 153 04:45:31 | 111.61 | 29801 |
| 153 06:30:26 | 85.26 | 29802 |
| 153 08:15:21 | 58.91 | 29803 |
| 153 10:00:16 | 32.55 | 29804 |
| 153 11:45:11 | 6.20 | 29805 |
| 153 13:30:05 | -20.16 | 29806 |
| 153 15:15:00 | -46.51 | 29807 |
| 153 16:59:55 | -72.86 | 29808 |
| 153 18:44:50 | -99.22 | 29809 |
| 153 20:29:45 | -125.57 | 29810 |
| 153 22:14:40 | -151.92 | 29811 |
| 153 23:59:34 | -178.28 | 29812 |

| | | |
|--------------|---------|------|
| 153 00:31:54 | 38.01 | 4564 |
| 153 02:16:48 | 11.66 | 4565 |
| 153 04:01:42 | -14.69 | 4566 |
| 153 05:46:36 | -41.04 | 4567 |
| 153 07:31:29 | -67.39 | 4568 |
| 153 09:16:23 | -93.74 | 4569 |
| 153 11:01:17 | -120.09 | 4570 |
| 153 12:46:11 | -146.44 | 4571 |
| 153 14:31:04 | -172.79 | 4572 |
| 153 16:15:58 | 160.86 | 4573 |
| 153 18:00:52 | 134.51 | 4574 |
| 153 19:45:46 | 108.17 | 4575 |
| 153 21:30:39 | 81.81 | 4576 |
| 153 23:15:33 | 55.47 | 4577 |

| | | |
|--------------|---------|-------|
| 154 01:44:29 | 155.37 | 29813 |
| 154 03:29:24 | 129.01 | 29814 |
| 154 05:14:19 | 102.66 | 29815 |
| 154 06:59:14 | 76.31 | 29816 |
| 154 08:44:08 | 49.95 | 29817 |
| 154 10:29:03 | 23.60 | 29818 |
| 154 12:13:58 | -2.76 | 29819 |
| 154 13:58:53 | -29.11 | 29820 |
| 154 15:43:48 | -55.46 | 29821 |
| 154 17:28:42 | -81.82 | 29822 |
| 154 19:13:37 | -108.17 | 29823 |
| 154 20:58:32 | -134.52 | 29824 |
| 154 22:43:27 | -160.88 | 29825 |

| | | |
|--------------|---------|------|
| 154 01:00:27 | 29.12 | 4578 |
| 154 02:45:21 | 2.77 | 4579 |
| 154 04:30:14 | -23.58 | 4580 |
| 154 06:15:08 | -49.93 | 4581 |
| 154 08:00:02 | -76.28 | 4582 |
| 154 09:44:56 | -102.63 | 4583 |
| 154 11:29:49 | -128.98 | 4584 |
| 154 13:14:43 | -155.33 | 4585 |
| 154 14:59:37 | 178.32 | 4586 |
| 154 16:44:31 | 151.97 | 4587 |
| 154 18:29:24 | 125.62 | 4588 |
| 154 20:14:18 | 99.27 | 4589 |
| 154 21:59:12 | 72.92 | 4590 |
| 154 23:44:06 | 46.57 | 4591 |

| | | |
|--------------|---------|-------|
| 155 00:28:22 | 172.77 | 29826 |
| 155 02:13:17 | 146.42 | 29827 |
| 155 03:58:11 | 120.06 | 29828 |
| 155 05:43:06 | 93.71 | 29829 |
| 155 07:28:01 | 67.35 | 29830 |
| 155 09:12:56 | 41.00 | 29831 |
| 155 10:57:51 | 14.65 | 29832 |
| 155 12:42:45 | -11.71 | 29833 |
| 155 14:27:40 | -38.06 | 29834 |
| 155 16:12:35 | -64.42 | 29835 |
| 155 17:57:30 | -90.77 | 29836 |
| 155 19:42:25 | -117.12 | 29837 |
| 155 21:27:19 | -143.48 | 29838 |
| 155 23:12:14 | -169.83 | 29839 |

| | | |
|--------------|---------|------|
| 155 01:28:59 | 20.22 | 4592 |
| 155 03:13:53 | -6.13 | 4593 |
| 155 04:58:47 | -32.47 | 4594 |
| 155 06:43:41 | -58.82 | 4595 |
| 155 08:28:34 | -85.17 | 4596 |
| 155 10:13:28 | -111.52 | 4597 |
| 155 11:58:22 | -137.87 | 4598 |
| 155 13:43:16 | -164.22 | 4599 |
| 155 15:28:09 | 169.43 | 4600 |
| 155 17:13:03 | 143.08 | 4601 |
| 155 18:57:57 | 116.73 | 4602 |
| 155 20:42:51 | 90.38 | 4603 |
| 155 22:27:44 | 64.03 | 4604 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

152 01:13:39 -116.26 28171
 152 02:55:40 -141.76 28172
 152 04:37:40 -167.26 28173
 152 06:19:41 167.24 28174
 152 08:01:41 141.74 28175
 152 09:43:42 116.24 28176
 152 11:25:42 90.74 28177
 152 13:07:43 65.24 28178
 152 14:49:43 39.74 28179
 152 16:31:44 14.24 28180
 152 18:13:44 -11.25 28181
 152 19:55:45 -36.76 28182
 152 21:37:45 -62.25 28183
 152 23:19:46 -87.76 28184

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

152 01:07:16 -85.71 19230
 152 02:48:29 -111.02 19231
 152 04:29:42 -136.32 19232
 152 06:10:55 -161.62 19233
 152 07:52:08 173.08 19234
 152 09:33:22 147.76 19235
 152 11:14:35 122.46 19236
 152 12:55:48 97.15 19237
 152 14:37:01 71.85 19238
 152 16:18:14 46.55 19239
 152 17:59:28 21.23 19240
 152 19:40:41 -4.07 19241
 152 21:21:54 -29.38 19242
 152 23:03:07 -54.68 19243

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

152 00:18:34 -153.68 8668
 152 02:00:38 -179.19 8669
 152 03:42:43 155.29 8670
 152 05:24:48 129.77 8671
 152 07:06:53 104.24 8672
 152 08:48:58 78.72 8673
 152 10:31:02 53.21 8674
 152 12:13:07 27.69 8675
 152 13:55:12 2.17 8676
 152 15:37:17 -23.35 8677
 152 17:19:21 -48.86 8678
 152 19:01:26 -74.38 8679
 152 20:43:31 -99.90 8680
 152 22:25:36 -125.43 8681

153 01:01:46 -113.25 28185
 153 02:43:47 -138.76 28186
 153 04:25:47 -164.25 28187
 153 06:07:48 170.24 28188
 153 07:49:48 144.75 28189
 153 09:31:49 119.24 28190
 153 11:13:49 93.75 28191
 153 12:55:50 68.24 28192
 153 14:37:50 42.75 28193
 153 16:19:51 17.24 28194
 153 18:01:51 -8.25 28195
 153 19:43:52 -33.75 28196
 153 21:25:52 -59.25 28197
 153 23:07:53 -84.75 28198

153 00:44:20 -79.98 19244
 153 02:25:33 -105.28 19245
 153 04:06:47 -130.60 19246
 153 05:48:00 -155.90 19247
 153 07:29:13 178.79 19248
 153 09:10:26 153.49 19249
 153 10:51:39 128.19 19250
 153 12:32:53 102.87 19251
 153 14:14:06 77.57 19252
 153 15:55:19 52.27 19253
 153 17:36:32 26.96 19254
 153 19:17:45 1.66 19255
 153 20:58:58 -23.64 19256
 153 22:40:12 -48.96 19257

153 00:07:41 -150.95 8682
 153 01:49:45 -176.46 8683
 153 03:31:50 158.02 8684
 153 05:13:55 132.50 8685
 153 06:56:00 106.98 8686
 153 08:38:04 81.47 8687
 153 10:20:09 55.95 8688
 153 12:02:14 30.43 8689
 153 13:44:19 4.90 8690
 153 15:26:24 -20.62 8691
 153 17:08:28 -46.13 8692
 153 18:50:33 -71.65 8693
 153 20:32:38 -97.17 8694
 153 22:14:43 -122.69 8695
 153 23:56:47 -148.20 8696

154 00:49:53 -110.25 28199
 154 02:31:54 -135.75 28200
 154 04:13:54 -161.25 28201
 154 05:55:55 173.25 28202
 154 07:37:55 147.75 28203
 154 09:19:56 122.25 28204
 154 11:01:56 96.76 28205
 154 12:43:57 71.25 28206
 154 14:25:57 45.76 28207
 154 16:07:58 20.25 28208
 154 17:49:58 -5.24 28209
 154 19:31:59 -30.75 28210
 154 21:13:59 -56.24 28211
 154 22:55:59 -81.73 28212

154 00:21:25 -74.26 19258
 154 02:02:38 -99.57 19259
 154 03:43:51 -124.87 19260
 154 05:25:04 -150.17 19261
 154 07:06:18 -175.49 19262
 154 08:47:31 159.21 19263
 154 10:28:44 133.91 19264
 154 12:09:57 108.60 19265
 154 13:51:10 83.30 19266
 154 15:32:24 57.98 19267
 154 17:13:37 32.68 19268
 154 18:54:50 7.38 19269
 154 20:36:03 -17.93 19270
 154 22:17:16 -43.23 19271
 154 23:58:29 -68.53 19272

154 01:38:52 -173.72 8697
 154 03:20:57 160.75 8698
 154 05:03:02 135.23 8699
 154 06:45:07 109.71 8700
 154 08:27:11 84.20 8701
 154 10:09:16 58.68 8702
 154 11:51:21 33.16 8703
 154 13:33:26 7.64 8704
 154 15:15:30 -17.87 8705
 154 16:57:35 -43.39 8706
 154 18:39:40 -68.92 8707
 154 20:21:45 -94.44 8708
 154 22:03:50 -119.96 8709
 154 23:45:54 -145.47 8710

155 00:38:00 -107.24 28213
 155 02:20:00 -132.73 28214
 155 04:02:01 -158.24 28215
 155 05:44:01 176.27 28216
 155 07:26:02 150.76 28217
 155 09:08:02 125.27 28218
 155 10:50:03 99.76 28219
 155 12:32:03 74.27 28220
 155 14:14:04 48.76 28221
 155 15:56:04 23.27 28222
 155 17:38:05 -2.24 28223
 155 19:20:05 -27.73 28224
 155 21:02:06 -53.24 28225
 155 22:44:06 -78.73 28226

155 01:39:43 -93.85 19273
 155 03:20:56 -119.15 19274
 155 05:02:09 -144.45 19275
 155 06:43:22 -169.76 19276
 155 08:24:35 164.94 19277
 155 10:05:49 139.62 19278
 155 11:47:02 114.32 19279
 155 13:28:15 89.02 19280
 155 15:09:28 63.72 19281
 155 16:50:41 38.41 19282
 155 18:31:55 13.10 19283
 155 20:13:08 -12.21 19284
 155 21:54:21 -37.51 19285
 155 23:35:34 -62.81 19286

155 01:27:59 -170.99 8711
 155 03:10:04 163.49 8712
 155 04:52:09 137.97 8713
 155 06:34:13 112.46 8714
 155 08:16:18 86.94 8715
 155 09:58:23 61.41 8716
 155 11:40:28 35.89 8717
 155 13:22:33 10.37 8718
 155 15:04:37 -15.14 8719
 155 16:46:42 -40.66 8720
 155 18:28:47 -64.18 8721
 155 20:10:52 -91.70 8722
 155 21:52:56 -117.21 8723
 155 23:35:01 -142.74 8724

SATELLITE C3

Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT

day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 156 00:57:09 | 163.81 | 29840 |
| 156 02:42:04 | 137.46 | 29841 |
| 156 04:26:59 | 111.11 | 29842 |
| 156 06:11:53 | 84.75 | 29843 |
| 156 07:56:48 | 58.40 | 29844 |
| 156 09:41:43 | 32.04 | 29845 |
| 156 11:26:38 | 5.69 | 29846 |
| 156 13:11:33 | -20.66 | 29847 |
| 156 14:56:28 | -47.02 | 29848 |
| 156 16:41:22 | -73.37 | 29849 |
| 156 18:26:17 | -99.73 | 29850 |
| 156 20:11:12 | -126.08 | 29851 |
| 156 21:56:07 | -152.43 | 29852 |
| 156 23:41:02 | -178.79 | 29853 |

SATELLITE C4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT

day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 156 00:12:38 | 37.68 | 4605 |
| 156 01:57:32 | 11.33 | 4606 |
| 156 03:42:26 | -15.02 | 4607 |
| 156 05:27:19 | -41.37 | 4608 |
| 156 07:12:13 | -67.72 | 4609 |
| 156 08:57:07 | -94.06 | 4610 |
| 156 10:42:00 | -120.42 | 4611 |
| 156 12:26:54 | -146.77 | 4612 |
| 156 14:11:48 | -173.11 | 4613 |
| 156 15:56:42 | 160.54 | 4614 |
| 156 17:41:35 | 134.19 | 4615 |
| 156 19:26:29 | 107.84 | 4616 |
| 156 21:11:23 | 81.49 | 4617 |
| 156 22:56:17 | 55.14 | 4618 |

| | | |
|--------------|---------|-------|
| 157 01:25:56 | 154.86 | 29854 |
| 157 03:10:51 | 128.50 | 29855 |
| 157 04:55:46 | 102.15 | 29856 |
| 157 06:40:41 | 75.80 | 29857 |
| 157 08:25:36 | 49.44 | 29858 |
| 157 10:10:30 | 23.09 | 29859 |
| 157 11:55:25 | -3.27 | 29860 |
| 157 13:40:20 | -29.62 | 29861 |
| 157 15:25:15 | -55.97 | 29862 |
| 157 17:10:10 | -82.33 | 29863 |
| 157 18:55:05 | -108.68 | 29864 |
| 157 20:39:59 | -135.03 | 29865 |
| 157 22:24:54 | -161.39 | 29866 |

| | | |
|--------------|---------|------|
| 157 00:41:10 | 28.79 | 4619 |
| 157 02:26:04 | 2.44 | 4620 |
| 157 04:10:58 | -23.91 | 4621 |
| 157 05:55:52 | -50.26 | 4622 |
| 157 07:40:45 | -76.61 | 4623 |
| 157 09:25:39 | -102.96 | 4624 |
| 157 11:10:33 | -129.31 | 4625 |
| 157 12:55:27 | -155.66 | 4626 |
| 157 14:40:20 | 177.99 | 4627 |
| 157 16:25:14 | 151.64 | 4628 |
| 157 18:10:08 | 125.30 | 4629 |
| 157 19:55:02 | 98.95 | 4630 |
| 157 21:39:55 | 72.60 | 4631 |
| 157 23:24:49 | 46.25 | 4632 |

| | | |
|--------------|---------|-------|
| 158 00:09:49 | 172.26 | 29867 |
| 158 01:54:44 | 145.91 | 29868 |
| 158 03:39:39 | 119.55 | 29869 |
| 158 05:24:33 | 93.20 | 29870 |
| 158 07:09:28 | 66.84 | 29871 |
| 158 08:54:23 | 40.49 | 29872 |
| 158 10:39:18 | 14.14 | 29873 |
| 158 12:24:13 | -12.22 | 29874 |
| 158 14:09:07 | -38.57 | 29875 |
| 158 15:54:02 | -64.93 | 29876 |
| 158 17:38:57 | -91.28 | 29877 |
| 158 19:23:52 | -117.63 | 29878 |
| 158 21:08:47 | -143.99 | 29879 |
| 158 22:53:42 | -170.34 | 29880 |

| | | |
|--------------|---------|------|
| 158 01:09:43 | 19.90 | 4633 |
| 158 02:54:37 | -6.45 | 4634 |
| 158 04:39:30 | -32.80 | 4635 |
| 158 06:24:24 | -59.15 | 4636 |
| 158 08:09:18 | -85.50 | 4637 |
| 158 09:54:12 | -111.85 | 4638 |
| 158 11:39:05 | -138.20 | 4639 |
| 158 13:23:59 | -164.55 | 4640 |
| 158 15:08:53 | 169.10 | 4641 |
| 158 16:53:47 | 142.75 | 4642 |
| 158 18:38:40 | 116.40 | 4643 |
| 158 20:23:34 | 90.05 | 4644 |
| 158 22:08:28 | 63.71 | 4645 |
| 158 23:53:22 | 37.36 | 4646 |

| | | |
|--------------|---------|-------|
| 159 00:38:36 | 163.30 | 29881 |
| 159 02:23:31 | 136.95 | 29882 |
| 159 04:08:26 | 110.60 | 29883 |
| 159 05:53:21 | 84.24 | 29884 |
| 159 07:38:16 | 57.89 | 29885 |
| 159 09:23:10 | 31.53 | 29886 |
| 159 11:08:05 | 5.18 | 29887 |
| 159 12:53:00 | -21.17 | 29888 |
| 159 14:37:55 | -47.53 | 29889 |
| 159 16:22:50 | -73.88 | 29890 |
| 159 18:07:44 | -100.24 | 29891 |
| 159 19:52:39 | -126.59 | 29892 |
| 159 21:37:34 | -152.94 | 29893 |
| 159 23:22:29 | -179.30 | 29894 |

| | | |
|--------------|---------|------|
| 159 01:38:15 | 11.01 | 4647 |
| 159 03:23:09 | -15.34 | 4648 |
| 159 05:08:03 | -41.69 | 4649 |
| 159 06:52:57 | -68.04 | 4650 |
| 159 08:37:50 | -94.39 | 4651 |
| 159 10:22:44 | -120.74 | 4652 |
| 159 12:07:38 | -147.09 | 4653 |
| 159 13:52:32 | -173.94 | 4654 |
| 159 15:37:25 | 160.21 | 4655 |
| 159 17:22:19 | 133.86 | 4656 |
| 159 19:07:13 | 107.51 | 4657 |
| 159 20:52:06 | 81.16 | 4658 |
| 159 22:37:00 | 54.81 | 4659 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|-------|----------------------------|---------|-------|-------|----------------------------|---------|------|-------|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT |
| day hr mn sc | deg | dg | | day hr mn sc | deg | dg | | day hr mn sc | deg | dg | |
| 156 00:26:07 | -104.24 | 28227 | | 156 01:16:47 | -88.12 | 19287 | | 156 01:17:06 | -168.26 | 8725 | |
| 156 02:08:07 | -129.73 | 28228 | | 156 02:58:00 | -113.42 | 19288 | | 156 02:59:11 | 166.22 | 8726 | |
| 156 03:50:08 | -155.23 | 28229 | | 156 04:39:14 | -138.73 | 19289 | | 156 04:41:16 | 140.70 | 8727 | |
| 156 05:32:08 | 179.27 | 28230 | | 156 06:20:27 | -164.04 | 19290 | | 156 06:23:20 | 115.19 | 8728 | |
| 156 07:14:09 | 153.77 | 28231 | | 156 08:01:40 | 170.66 | 19291 | | 156 08:05:25 | 89.67 | 8729 | |
| 156 08:56:09 | 128.27 | 28232 | | 156 09:42:53 | 145.36 | 19292 | | 156 09:47:30 | 64.15 | 8730 | |
| 156 10:38:10 | 102.77 | 28233 | | 156 11:24:06 | 120.05 | 19293 | | 156 11:29:35 | 38.62 | 8731 | |
| 156 12:20:10 | 77.27 | 28234 | | 156 13:05:20 | 94.74 | 19294 | | 156 13:11:39 | 13.12 | 8732 | |
| 156 14:02:11 | 51.77 | 28235 | | 156 14:46:33 | 69.43 | 19295 | | 156 14:53:44 | -12.41 | 8733 | |
| 156 15:44:11 | 26.27 | 28236 | | 156 16:27:46 | 44.13 | 19296 | | 156 16:35:49 | -37.93 | 8734 | |
| 156 17:26:12 | .77 | 28237 | | 156 18:08:59 | 18.83 | 19297 | | 156 18:17:54 | -63.45 | 8735 | |
| 156 19:08:12 | -24.72 | 28238 | | 156 19:50:12 | -6.47 | 19298 | | 156 19:59:58 | -88.96 | 8736 | |
| 156 20:50:13 | -50.23 | 28239 | | 156 21:31:26 | -31.79 | 19299 | | 156 21:42:03 | -114.48 | 8737 | |
| 156 22:32:13 | -75.72 | 28240 | | 156 23:12:39 | -57.09 | 19300 | | 156 23:24:08 | -140.00 | 8738 | |
| 157 00:14:14 | -101.23 | 28241 | | 157 00:53:52 | -82.40 | 19301 | | 157 01:06:13 | -165.52 | 8739 | |
| 157 01:56:14 | -126.72 | 28242 | | 157 02:35:05 | -107.70 | 19302 | | 157 02:48:18 | 168.95 | 8740 | |
| 157 03:38:15 | -152.23 | 28243 | | 157 04:16:18 | -133.00 | 19303 | | 157 04:30:22 | 143.45 | 8741 | |
| 157 05:20:15 | -177.72 | 28244 | | 157 05:57:31 | -158.31 | 19304 | | 157 06:12:27 | 117.92 | 8742 | |
| 157 07:02:16 | 156.77 | 28245 | | 157 07:38:45 | 176.38 | 19305 | | 157 07:54:32 | 92.40 | 8743 | |
| 157 08:44:16 | 131.28 | 28246 | | 157 09:19:58 | 151.07 | 19306 | | 157 09:36:37 | 66.88 | 8744 | |
| 157 10:26:17 | 105.77 | 28247 | | 157 11:01:11 | 125.77 | 19307 | | 157 11:18:41 | 41.37 | 8745 | |
| 157 12:08:17 | 80.28 | 28248 | | 157 12:42:24 | 100.47 | 19308 | | 157 13:00:46 | 15.85 | 8746 | |
| 157 13:50:18 | 54.77 | 28249 | | 157 14:23:37 | 75.17 | 19309 | | 157 14:42:51 | -9.67 | 8747 | |
| 157 15:32:18 | 29.28 | 28250 | | 157 16:04:51 | 49.85 | 19310 | | 157 16:24:56 | -35.19 | 8748 | |
| 157 17:14:19 | 3.77 | 28251 | | 157 17:46:04 | 24.55 | 19311 | | 157 18:07:01 | -60.72 | 8749 | |
| 157 18:56:19 | -21.72 | 28252 | | 157 19:27:17 | -7.76 | 19312 | | 157 19:49:05 | -86.23 | 8750 | |
| 157 20:38:20 | -47.23 | 28253 | | 157 21:08:30 | -26.06 | 19313 | | 157 21:31:10 | -111.75 | 8751 | |
| 157 22:20:20 | -72.72 | 28254 | | 157 22:49:43 | -51.36 | 19314 | | 157 23:13:15 | -137.27 | 8752 | |
| 158 00:02:21 | -98.22 | 28255 | | 158 00:30:57 | -76.68 | 19315 | | 158 00:55:20 | -162.79 | 8753 | |
| 158 01:44:21 | -123.72 | 28256 | | 158 02:12:10 | -101.98 | 19316 | | 158 02:37:24 | 171.70 | 8754 | |
| 158 03:26:22 | -149.22 | 28257 | | 158 03:53:23 | -127.28 | 19317 | | 158 04:19:29 | 146.18 | 8755 | |
| 158 05:08:22 | -174.72 | 28258 | | 158 05:34:36 | -152.59 | 19318 | | 158 06:01:34 | 120.66 | 8756 | |
| 158 06:50:22 | 159.79 | 28259 | | 158 07:15:49 | -177.89 | 19319 | | 158 07:43:39 | 95.13 | 8757 | |
| 158 08:32:23 | 134.28 | 28260 | | 158 08:57:02 | 156.81 | 19320 | | 158 09:25:44 | 69.61 | 8758 | |
| 158 10:14:23 | 108.79 | 28261 | | 158 10:38:16 | 131.49 | 19321 | | 158 11:07:48 | 44.10 | 8759 | |
| 158 11:56:24 | 83.29 | 28262 | | 158 12:19:29 | 106.19 | 19322 | | 158 12:49:53 | 18.58 | 8760 | |
| 158 13:38:24 | 57.79 | 28263 | | 158 14:00:42 | 80.88 | 19323 | | 158 14:31:58 | -6.94 | 8761 | |
| 158 15:20:25 | 32.29 | 28264 | | 158 15:41:55 | 55.58 | 19324 | | 158 16:14:03 | -32.46 | 8762 | |
| 158 17:02:25 | 6.79 | 28265 | | 158 17:23:08 | 30.28 | 19325 | | 158 17:56:07 | -57.97 | 8763 | |
| 158 18:44:26 | -18.71 | 28266 | | 158 19:04:22 | 4.96 | 19326 | | 158 19:38:12 | -83.49 | 8764 | |
| 158 20:26:26 | -44.21 | 28267 | | 158 20:45:35 | -20.34 | 19327 | | 158 21:20:17 | -109.01 | 8765 | |
| 158 22:08:27 | -69.71 | 28268 | | 158 22:26:48 | -45.64 | 19328 | | 158 23:02:22 | -134.54 | 8766 | |
| 158 23:50:27 | -95.21 | 28269 | | | | | | | | | |
| 159 01:32:28 | -120.71 | 28270 | | 159 00:08:01 | -70.95 | 19329 | | 159 00:44:27 | -160.06 | 8767 | |
| 159 03:14:28 | -146.20 | 28271 | | 159 01:49:14 | -96.25 | 19330 | | 159 02:26:31 | 174.43 | 8768 | |
| 159 04:56:29 | -171.71 | 28272 | | 159 03:30:28 | -121.57 | 19331 | | 159 04:08:36 | 148.91 | 8769 | |
| 159 06:38:29 | 162.80 | 28273 | | 159 05:11:41 | -146.87 | 19332 | | 159 05:50:41 | 123.39 | 8770 | |
| 159 08:20:30 | 137.29 | 28274 | | 159 06:52:54 | -172.17 | 19333 | | 159 07:32:46 | 97.87 | 8771 | |
| 159 10:02:30 | 111.80 | 28275 | | 159 08:34:07 | 162.53 | 19334 | | 159 09:14:50 | 72.36 | 8772 | |
| 159 11:44:31 | 86.29 | 28276 | | 159 10:15:20 | 137.22 | 19335 | | 159 10:56:55 | 46.84 | 8773 | |
| 159 13:26:31 | 60.80 | 28277 | | 159 11:56:33 | 111.92 | 19336 | | 159 12:39:00 | 21.32 | 8774 | |
| 159 15:08:32 | 35.29 | 28278 | | 159 13:37:47 | 86.60 | 19337 | | 159 14:21:05 | -4.21 | 8775 | |
| 159 16:50:32 | 9.80 | 28279 | | 159 15:19:00 | 61.30 | 19338 | | 159 16:03:10 | -29.73 | 8776 | |
| 159 18:32:33 | -15.71 | 28280 | | 159 17:00:13 | 36.00 | 19339 | | 159 17:45:14 | -55.24 | 8777 | |
| 159 20:14:33 | -41.20 | 28281 | | 159 18:41:26 | 10.69 | 19340 | | 159 19:27:19 | -80.76 | 8778 | |
| 159 21:56:34 | -66.71 | 28282 | | 159 20:22:39 | -14.61 | 19341 | | 159 21:09:24 | -106.28 | 8779 | |
| 159 23:38:34 | -92.20 | 28283 | | 159 22:03:53 | -39.92 | 19342 | | 159 22:51:29 | -131.80 | 8780 | |
| | | | | 159 23:45:06 | -65.23 | 19343 | | | | | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E | LONG | ORBIT |
|--------------|-----|------|-------|
| day hr mn sc | deg | dg | |

| | | |
|--------------|---------|-------|
| 160 01:07:24 | 154.35 | 29895 |
| 160 02:52:19 | 128.00 | 29896 |
| 160 04:37:13 | 101.64 | 29897 |
| 160 06:22:08 | 75.29 | 29898 |
| 160 08:07:03 | 48.93 | 29899 |
| 160 09:51:58 | 22.58 | 29900 |
| 160 11:36:53 | -3.77 | 29901 |
| 160 13:21:47 | -30.13 | 29902 |
| 160 15:06:42 | -56.48 | 29903 |
| 160 16:51:37 | -82.84 | 29904 |
| 160 18:36:32 | -109.19 | 29905 |
| 160 20:21:27 | -135.54 | 29906 |
| 160 22:06:21 | -161.90 | 29907 |
| 160 23:51:16 | 171.75 | 29908 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E | LONG | ORBIT |
|--------------|-----|------|-------|
| day hr mn sc | deg | dg | |

| | | |
|--------------|---------|------|
| 160 00:21:54 | 28.46 | 4660 |
| 160 02:06:48 | 2.12 | 4661 |
| 160 03:51:41 | -24.24 | 4662 |
| 160 05:36:35 | -50.58 | 4663 |
| 160 07:21:29 | -76.93 | 4664 |
| 160 09:06:23 | -103.28 | 4665 |
| 160 10:51:16 | -129.63 | 4666 |
| 160 12:36:10 | -155.98 | 4667 |
| 160 14:21:04 | 177.67 | 4668 |
| 160 16:05:58 | 151.32 | 4669 |
| 160 17:50:51 | 124.97 | 4670 |
| 160 19:35:45 | 98.62 | 4671 |
| 160 21:20:39 | 72.27 | 4672 |
| 160 23:05:33 | 45.92 | 4673 |

| | | |
|--------------|---------|-------|
| 161 01:36:11 | 145.40 | 29909 |
| 161 03:21:06 | 119.04 | 29910 |
| 161 05:06:01 | 92.69 | 29911 |
| 161 06:50:56 | 66.34 | 29912 |
| 161 08:35:50 | 39.98 | 29913 |
| 161 10:20:45 | 13.63 | 29914 |
| 161 12:05:40 | -12.73 | 29915 |
| 161 13:50:35 | -39.08 | 29916 |
| 161 15:35:30 | -65.43 | 29917 |
| 161 17:20:24 | -91.79 | 29918 |
| 161 19:05:19 | -118.14 | 29919 |
| 161 20:50:14 | -144.50 | 29920 |
| 161 22:35:09 | -170.85 | 29921 |

| | | |
|--------------|---------|------|
| 161 00:50:26 | 19.57 | 4674 |
| 161 02:35:20 | -6.78 | 4675 |
| 161 04:20:14 | -33.13 | 4676 |
| 161 06:05:08 | -59.47 | 4677 |
| 161 07:50:01 | -85.83 | 4678 |
| 161 09:34:55 | -112.17 | 4679 |
| 161 11:19:49 | -138.52 | 4680 |
| 161 13:04:43 | -164.87 | 4681 |
| 161 14:49:36 | 168.78 | 4682 |
| 161 16:34:30 | 142.43 | 4683 |
| 161 18:19:24 | 116.08 | 4684 |
| 161 20:04:17 | 89.73 | 4685 |
| 161 21:49:11 | 63.38 | 4686 |
| 161 23:34:05 | 37.03 | 4687 |

| | | |
|--------------|---------|-------|
| 162 00:20:04 | 162.80 | 29922 |
| 162 02:04:58 | 136.44 | 29923 |
| 162 03:49:53 | 110.09 | 29924 |
| 162 05:34:48 | 83.73 | 29925 |
| 162 07:19:43 | 57.38 | 29926 |
| 162 09:04:38 | 31.03 | 29927 |
| 162 10:49:33 | 4.67 | 29928 |
| 162 12:34:27 | -21.68 | 29929 |
| 162 14:19:22 | -48.04 | 29930 |
| 162 16:04:17 | -74.39 | 29931 |
| 162 17:49:12 | -100.74 | 29932 |
| 162 19:34:07 | -127.10 | 29933 |
| 162 21:19:01 | -153.45 | 29934 |
| 162 23:03:56 | -179.81 | 29935 |

| | | |
|--------------|---------|------|
| 162 01:18:59 | 10.68 | 4688 |
| 162 03:03:52 | -15.67 | 4689 |
| 162 04:48:46 | -42.02 | 4690 |
| 162 06:33:40 | -68.37 | 4691 |
| 162 08:18:34 | -94.72 | 4692 |
| 162 10:03:27 | -121.07 | 4693 |
| 162 11:48:21 | -147.42 | 4694 |
| 162 13:33:15 | -173.76 | 4695 |
| 162 15:18:09 | 159.89 | 4696 |
| 162 17:03:02 | 133.54 | 4697 |
| 162 18:47:56 | 107.19 | 4698 |
| 162 20:32:50 | 80.84 | 4699 |
| 162 22:17:44 | 54.49 | 4700 |

| | | |
|--------------|---------|-------|
| 163 00:48:51 | 153.84 | 29936 |
| 163 02:33:46 | 127.49 | 29937 |
| 163 04:18:41 | 101.13 | 29938 |
| 163 06:03:35 | 74.78 | 29939 |
| 163 07:48:30 | 48.42 | 29940 |
| 163 09:33:25 | 22.07 | 29941 |
| 163 11:18:20 | -4.28 | 29942 |
| 163 13:03:15 | -30.64 | 29943 |
| 163 14:48:10 | -56.99 | 29944 |
| 163 16:33:04 | -83.35 | 29945 |
| 163 18:17:59 | -109.70 | 29946 |
| 163 20:02:54 | -136.05 | 29947 |
| 163 21:47:49 | -162.41 | 29948 |
| 163 23:32:44 | 171.24 | 29949 |

| | | |
|--------------|---------|------|
| 163 00:02:37 | 28.14 | 4701 |
| 163 01:47:31 | 1.79 | 4702 |
| 163 03:32:25 | -24.56 | 4703 |
| 163 05:17:19 | -50.91 | 4704 |
| 163 07:02:12 | -77.26 | 4705 |
| 163 08:47:06 | -103.61 | 4706 |
| 163 10:32:00 | -129.96 | 4707 |
| 163 12:16:53 | -156.31 | 4708 |
| 163 14:01:47 | 177.34 | 4709 |
| 163 15:46:41 | 150.99 | 4710 |
| 163 17:31:35 | 124.65 | 4711 |
| 163 19:16:28 | 98.29 | 4712 |
| 163 21:01:22 | 71.95 | 4713 |
| 163 22:46:16 | 45.60 | 4714 |

| SATELLITE S2 | | | | | |
|----------------------------|---------|-------|-------|--|--|
| Ascending Node Predictions | | | | | |
| Predicting for 184 days | | | | | |
| TIME (GMT) | E | LONG | ORBIT | | |
| day hr mn sc | deg | dg | | | |
| 160 01:20:35 | -117.71 | 28284 | | | |
| 160 03:02:35 | -143.20 | 28285 | | | |
| 160 04:44:36 | -168.71 | 28286 | | | |
| 160 06:26:36 | -165.80 | 28287 | | | |
| 160 08:08:37 | -140.30 | 28288 | | | |
| 160 09:50:37 | -114.80 | 28289 | | | |
| 160 11:32:38 | -89.30 | 28290 | | | |
| 160 13:14:38 | -63.90 | 28291 | | | |
| 160 14:56:39 | -38.30 | 28292 | | | |
| 160 16:38:39 | -12.80 | 28293 | | | |
| 160 18:20:40 | -12.70 | 28294 | | | |
| 160 20:02:40 | -38.20 | 28295 | | | |
| 160 21:44:41 | -63.70 | 28296 | | | |
| 160 23:26:41 | -89.19 | 28297 | | | |

| SATELLITE S3 | | | | | |
|----------------------------|---------|-------|-------|--|--|
| Ascending Node Predictions | | | | | |
| Predicting for 184 days | | | | | |
| TIME (GMT) | E | LONG | ORBIT | | |
| day hr mn sc | deg | dg | | | |
| 160 01:26:19 | -90.53 | 19344 | | | |
| 160 03:07:32 | -115.83 | 19345 | | | |
| 160 04:48:45 | -141.14 | 19346 | | | |
| 160 06:29:59 | -166.45 | 19347 | | | |
| 160 08:11:12 | -168.24 | 19348 | | | |
| 160 09:52:25 | -142.94 | 19349 | | | |
| 160 11:33:38 | -117.64 | 19350 | | | |
| 160 13:14:51 | -92.34 | 19351 | | | |
| 160 14:56:04 | -67.03 | 19352 | | | |
| 160 16:37:18 | -41.72 | 19353 | | | |
| 160 18:18:31 | -16.41 | 19354 | | | |
| 160 19:59:44 | -8.89 | 19355 | | | |
| 160 21:40:57 | -34.19 | 19356 | | | |
| 160 23:22:10 | -59.50 | 19357 | | | |

| SATELLITE S4 | | | | | |
|----------------------------|---------|------|-------|--|--|
| Ascending Node Predictions | | | | | |
| Predicting for 184 days | | | | | |
| TIME (GMT) | E | LONG | ORBIT | | |
| day hr mn sc | deg | dg | | | |
| 160 00:33:33 | -157.31 | 8781 | | | |
| 160 02:15:38 | -177.17 | 8782 | | | |
| 160 03:57:43 | -151.64 | 8783 | | | |
| 160 05:39:48 | -126.12 | 8784 | | | |
| 160 07:21:53 | -100.60 | 8785 | | | |
| 160 09:03:57 | -75.09 | 8786 | | | |
| 160 10:46:02 | -49.57 | 8787 | | | |
| 160 12:28:07 | -24.05 | 8788 | | | |
| 160 14:10:12 | -1.47 | 8789 | | | |
| 160 15:52:16 | -26.98 | 8790 | | | |
| 160 17:34:21 | -52.50 | 8791 | | | |
| 160 19:16:26 | -78.03 | 8792 | | | |
| 160 20:58:31 | -103.55 | 8793 | | | |
| 160 22:40:36 | -129.07 | 8794 | | | |

| | | |
|--------------|---------|-------|
| 161 01:08:42 | -114.70 | 28298 |
| 161 02:50:42 | -140.19 | 28299 |
| 161 04:32:43 | -165.70 | 28300 |
| 161 06:14:43 | 168.81 | 28301 |
| 161 07:56:44 | 143.30 | 28302 |
| 161 09:38:44 | 117.81 | 28303 |
| 161 11:20:44 | 92.32 | 28304 |
| 161 13:02:45 | 66.81 | 28305 |
| 161 14:44:45 | 41.32 | 28306 |
| 161 16:26:46 | 15.81 | 28307 |
| 161 18:08:46 | -9.68 | 28308 |
| 161 19:50:47 | -35.19 | 28309 |
| 161 21:32:47 | -60.68 | 28310 |
| 161 23:14:48 | -86.19 | 28311 |

| | | |
|--------------|---------|-------|
| 161 01:03:24 | -84.81 | 19358 |
| 161 02:44:37 | -110.11 | 19359 |
| 161 04:25:50 | -135.42 | 19360 |
| 161 06:07:03 | -160.72 | 19361 |
| 161 07:48:16 | -173.98 | 19362 |
| 161 09:29:30 | -148.66 | 19363 |
| 161 11:10:43 | -123.36 | 19364 |
| 161 12:51:56 | -98.05 | 19365 |
| 161 14:33:09 | -72.75 | 19366 |
| 161 16:14:22 | -47.45 | 19367 |
| 161 17:55:36 | -22.13 | 19368 |
| 161 19:36:49 | -3.17 | 19369 |
| 161 21:18:02 | -28.47 | 19370 |
| 161 22:59:15 | -53.78 | 19371 |

| | | |
|--------------|---------|------|
| 161 00:22:40 | -154.58 | 8795 |
| 161 02:04:45 | -179.90 | 8796 |
| 161 03:46:50 | -154.38 | 8797 |
| 161 05:28:55 | -128.86 | 8798 |
| 161 07:10:59 | -103.35 | 8799 |
| 161 08:53:04 | -77.83 | 8800 |
| 161 10:35:09 | -52.30 | 8801 |
| 161 12:17:14 | -26.78 | 8802 |
| 161 13:59:19 | -1.26 | 8803 |
| 161 15:41:23 | -24.25 | 8804 |
| 161 17:23:28 | -49.77 | 8805 |
| 161 19:05:33 | -75.29 | 8806 |
| 161 20:47:38 | -100.81 | 8807 |
| 161 22:29:43 | -126.34 | 8808 |

| | | |
|--------------|---------|-------|
| 162 00:56:48 | -111.68 | 28312 |
| 162 02:38:49 | -137.19 | 28313 |
| 162 04:20:49 | -162.68 | 28314 |
| 162 06:02:50 | 171.81 | 28315 |
| 162 07:44:50 | 146.32 | 28316 |
| 162 09:26:51 | 120.81 | 28317 |
| 162 11:08:51 | 95.32 | 28318 |
| 162 12:50:52 | 69.81 | 28319 |
| 162 14:32:52 | 44.32 | 28320 |
| 162 16:14:53 | 18.81 | 28321 |
| 162 17:56:53 | -6.68 | 28322 |
| 162 19:38:54 | -32.18 | 28323 |
| 162 21:20:54 | -57.68 | 28324 |
| 162 23:02:55 | -83.18 | 28325 |

| | | |
|--------------|---------|-------|
| 162 00:40:28 | -79.08 | 19372 |
| 162 02:21:41 | -104.38 | 19373 |
| 162 04:02:55 | -129.70 | 19374 |
| 162 05:44:08 | -155.00 | 19375 |
| 162 07:25:21 | -179.69 | 19376 |
| 162 09:06:34 | -154.39 | 19377 |
| 162 10:47:47 | -129.09 | 19378 |
| 162 12:29:01 | -103.77 | 19379 |
| 162 14:10:14 | -78.47 | 19380 |
| 162 15:51:27 | -53.17 | 19381 |
| 162 17:32:40 | -27.86 | 19382 |
| 162 19:13:53 | -2.56 | 19383 |
| 162 20:55:07 | -22.76 | 19384 |
| 162 22:36:20 | -48.06 | 19385 |

| | | |
|--------------|---------|------|
| 162 00:11:47 | -151.84 | 8809 |
| 162 01:53:52 | -177.37 | 8810 |
| 162 03:35:57 | -157.11 | 8811 |
| 162 05:18:02 | -131.59 | 8812 |
| 162 07:00:06 | -106.08 | 8813 |
| 162 08:42:11 | -80.56 | 8814 |
| 162 10:24:16 | -55.04 | 8815 |
| 162 12:06:21 | -29.52 | 8816 |
| 162 13:48:26 | -3.99 | 8817 |
| 162 15:30:30 | -21.52 | 8818 |
| 162 17:12:35 | -47.04 | 8819 |
| 162 18:54:40 | -72.56 | 8820 |
| 162 20:36:45 | -98.08 | 8821 |
| 162 22:18:49 | -123.59 | 8822 |

| | | |
|--------------|---------|-------|
| 163 00:44:55 | -108.68 | 28326 |
| 163 02:26:56 | -134.18 | 28327 |
| 163 04:08:56 | -159.68 | 28328 |
| 163 05:50:57 | 174.82 | 28329 |
| 163 07:32:57 | 149.33 | 28330 |
| 163 09:14:58 | 123.82 | 28331 |
| 163 10:56:58 | 98.33 | 28332 |
| 163 12:38:59 | 72.82 | 28333 |
| 163 14:20:59 | 47.33 | 28334 |
| 163 16:03:00 | 21.82 | 28335 |
| 163 17:45:00 | -3.67 | 28336 |
| 163 19:27:01 | -29.18 | 28337 |
| 163 21:09:01 | -54.67 | 28338 |
| 163 22:51:02 | -80.18 | 28339 |

| | | |
|--------------|---------|-------|
| 163 00:17:33 | -73.36 | 19386 |
| 163 01:58:46 | -98.66 | 19387 |
| 163 03:39:59 | -123.97 | 19388 |
| 163 05:21:12 | -149.27 | 19389 |
| 163 07:02:26 | -174.59 | 19390 |
| 163 08:43:39 | -160.11 | 19391 |
| 163 10:24:52 | -134.81 | 19392 |
| 163 12:06:05 | -109.50 | 19393 |
| 163 13:47:18 | -84.20 | 19394 |
| 163 15:28:32 | -58.89 | 19395 |
| 163 17:09:45 | -33.58 | 19396 |
| 163 18:50:58 | -8.28 | 19397 |
| 163 20:32:11 | -17.02 | 19398 |
| 163 22:13:24 | -42.33 | 19399 |
| 163 23:54:38 | -67.64 | 19400 |

| | | |
|--------------|---------|------|
| 163 00:00:54 | -149.11 | 8823 |
| 163 01:42:59 | -174.63 | 8824 |
| 163 03:25:04 | -159.84 | 8825 |
| 163 05:07:09 | -134.32 | 8826 |
| 163 06:49:13 | -108.81 | 8827 |
| 163 08:31:18 | -83.29 | 8828 |
| 163 10:13:23 | -57.77 | 8829 |
| 163 11:55:28 | -32.25 | 8830 |
| 163 13:37:32 | -6.74 | 8831 |
| 163 15:19:37 | -18.78 | 8832 |
| 163 17:01:42 | -44.30 | 8833 |
| 163 18:43:47 | -69.83 | 8834 |
| 163 20:25:52 | -95.35 | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 164 01:17:38 | 144.88 | 29950 |
| 164 03:02:33 | 118.53 | 29951 |
| 164 04:47:28 | 92.18 | 29952 |
| 164 06:32:23 | 65.82 | 29953 |
| 164 08:17:18 | 39.47 | 29954 |
| 164 10:02:13 | 13.12 | 29955 |
| 164 11:47:07 | -13.24 | 29956 |
| 164 13:32:02 | -39.59 | 29957 |
| 164 15:16:57 | -65.94 | 29958 |
| 164 17:01:52 | -92.30 | 29959 |
| 164 18:46:47 | -118.65 | 29960 |
| 164 20:31:41 | -145.01 | 29961 |
| 164 22:16:36 | -171.36 | 29962 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 164 00:31:10 | 19.25 | 4715 |
| 164 02:16:03 | -7.10 | 4716 |
| 164 04:00:57 | -33.45 | 4717 |
| 164 05:45:51 | -59.80 | 4718 |
| 164 07:30:45 | -86.15 | 4719 |
| 164 09:15:38 | -112.50 | 4720 |
| 164 11:00:32 | -138.85 | 4721 |
| 164 12:45:26 | -165.20 | 4722 |
| 164 14:30:20 | 168.45 | 4723 |
| 164 16:15:13 | 142.10 | 4724 |
| 164 18:00:07 | 115.75 | 4725 |
| 164 19:45:01 | 89.41 | 4726 |
| 164 21:29:54 | 63.05 | 4727 |
| 164 23:14:48 | 36.71 | 4728 |

| | | |
|--------------|---------|-------|
| 165 00:01:31 | 162.29 | 29963 |
| 165 01:46:26 | 135.93 | 29964 |
| 165 03:31:21 | 109.58 | 29965 |
| 165 05:16:15 | 83.22 | 29966 |
| 165 07:01:10 | 56.87 | 29967 |
| 165 08:46:05 | 30.52 | 29968 |
| 165 10:31:00 | 4.16 | 29969 |
| 165 12:15:55 | -22.19 | 29970 |
| 165 14:00:50 | -48.54 | 29971 |
| 165 15:45:44 | -74.90 | 29972 |
| 165 17:30:39 | -101.25 | 29973 |
| 165 19:15:34 | -127.61 | 29974 |
| 165 21:00:29 | -153.96 | 29975 |
| 165 22:45:24 | 179.69 | 29976 |

| | | |
|--------------|---------|------|
| 165 00:59:42 | 10.36 | 4729 |
| 165 02:44:36 | -15.99 | 4730 |
| 165 04:29:29 | -42.34 | 4731 |
| 165 06:14:23 | -68.69 | 4732 |
| 165 07:59:17 | -95.04 | 4733 |
| 165 09:44:11 | -121.39 | 4734 |
| 165 11:29:04 | -147.74 | 4735 |
| 165 13:13:58 | -174.09 | 4736 |
| 165 14:58:52 | 159.56 | 4737 |
| 165 15:43:46 | 133.21 | 4738 |
| 165 18:28:39 | 106.86 | 4739 |
| 165 20:13:33 | 80.51 | 4740 |
| 165 21:58:27 | 54.16 | 4741 |
| 165 23:43:21 | 27.82 | 4742 |

| | | |
|--------------|---------|-------|
| 166 00:30:18 | 153.33 | 29977 |
| 166 02:15:13 | 126.98 | 29978 |
| 166 04:00:08 | 100.62 | 29979 |
| 166 05:45:03 | 74.27 | 29980 |
| 166 07:29:58 | 47.92 | 29981 |
| 166 09:14:52 | 21.56 | 29982 |
| 166 10:59:47 | -4.79 | 29983 |
| 166 12:44:42 | -31.15 | 29984 |
| 166 14:29:37 | -57.50 | 29985 |
| 166 16:14:32 | -83.85 | 29986 |
| 166 17:59:27 | -110.21 | 29987 |
| 166 19:44:21 | -136.56 | 29988 |
| 166 21:29:16 | -162.92 | 29989 |
| 166 23:14:11 | 170.73 | 29990 |

| | | |
|--------------|---------|------|
| 166 01:28:14 | 1.46 | 4743 |
| 166 03:13:08 | -24.88 | 4744 |
| 166 04:58:02 | -51.23 | 4745 |
| 166 06:42:55 | -77.58 | 4746 |
| 166 08:27:49 | -103.93 | 4747 |
| 166 10:12:43 | -130.28 | 4748 |
| 166 11:57:37 | -156.63 | 4749 |
| 166 13:42:30 | 177.02 | 4750 |
| 166 15:27:24 | 150.67 | 4751 |
| 166 17:12:18 | 124.32 | 4752 |
| 166 18:57:12 | 97.97 | 4753 |
| 166 20:42:05 | 71.62 | 4754 |
| 166 22:26:59 | 45.27 | 4755 |

| | | |
|--------------|---------|-------|
| 167 00:59:06 | 144.38 | 29991 |
| 167 02:44:01 | 118.02 | 29992 |
| 167 04:28:55 | 91.67 | 29993 |
| 167 06:13:50 | 65.31 | 29994 |
| 167 07:58:45 | 38.96 | 29995 |
| 167 09:43:40 | 12.61 | 29996 |
| 167 11:28:35 | -13.75 | 29997 |
| 167 13:13:30 | -40.10 | 29998 |
| 167 14:58:24 | -66.46 | 29999 |
| 167 16:43:19 | -92.81 | 30000 |
| 167 18:28:14 | -119.16 | 30001 |
| 167 20:13:09 | -145.52 | 30002 |
| 167 21:58:04 | -171.87 | 30003 |
| 167 23:42:58 | 161.77 | 30004 |

| | | |
|--------------|---------|------|
| 167 00:11:53 | 18.92 | 4756 |
| 167 01:56:47 | -7.42 | 4757 |
| 167 03:41:40 | -33.78 | 4758 |
| 167 05:26:34 | -60.12 | 4759 |
| 167 07:11:28 | -86.47 | 4760 |
| 167 08:56:21 | -112.82 | 4761 |
| 167 10:41:15 | -139.17 | 4762 |
| 167 12:26:09 | -165.52 | 4763 |
| 167 14:11:03 | 168.13 | 4764 |
| 167 15:55:56 | 141.78 | 4765 |
| 167 17:40:50 | 115.43 | 4766 |
| 167 19:25:44 | 89.08 | 4767 |
| 167 21:10:38 | 62.73 | 4768 |
| 167 22:55:31 | 36.38 | 4769 |

| SATELLITE S2 | | | | | | | SATELLITE S3 | | | | | | | SATELLITE S4 | | | | | | |
|----------------------------|---------|-------|--------------|---------|-------|--------------|----------------------------|-------|--------------|---------|-------|--------------|---------|----------------------------|-----|----|----|----|-----|----|
| Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | day | hr | mn | sc | deg | dg |
| 164 00:33:02 | -105.67 | 28340 | 164 01:35:51 | -92.95 | 19401 | 164 01:32:06 | -171.90 | 8838 | 164 03:15:03 | -131.18 | 28341 | 164 03:14:11 | 162.58 | 8839 | | | | | | |
| 164 02:15:03 | -131.18 | 28341 | 164 03:17:04 | -118.25 | 19402 | 164 04:56:15 | 137.07 | 8840 | 164 03:57:03 | -156.67 | 28342 | 164 04:58:17 | -143.55 | 19403 | | | | | | |
| 164 05:39:04 | 177.82 | 28343 | 164 06:39:30 | -168.85 | 19404 | 164 06:38:20 | 111.55 | 8841 | 164 07:21:04 | 152.33 | 28344 | 164 08:20:44 | 165.83 | 19405 | | | | | | |
| 164 09:03:04 | 126.84 | 28345 | 164 10:01:57 | 140.53 | 19406 | 164 08:20:25 | 86.03 | 8842 | 164 10:45:05 | 101.33 | 28346 | 164 11:43:10 | 115.22 | 19407 | | | | | | |
| 164 12:27:05 | 75.84 | 28347 | 164 13:24:23 | 89.92 | 19408 | 164 11:44:35 | 34.98 | 8843 | 164 14:09:06 | 50.33 | 28348 | 164 15:05:36 | 64.62 | 19409 | | | | | | |
| 164 15:51:06 | 24.84 | 28349 | 164 16:46:49 | 39.31 | 19410 | 164 13:26:39 | 9.47 | 8844 | 164 17:33:07 | -67 | 28350 | 164 18:28:03 | 14.00 | 19411 | | | | | | |
| 164 19:15:07 | -26.16 | 28351 | 164 20:09:16 | -11.30 | 19412 | 164 15:08:44 | -16.05 | 8846 | 164 20:57:08 | -51.67 | 28352 | 164 21:50:29 | -36.61 | 19413 | | | | | | |
| 164 22:39:08 | -77.16 | 28353 | 164 23:31:42 | -61.91 | 19414 | 164 23:39:08 | -143.64 | 8851 | | | | | | | | | | | | |
| 165 00:21:09 | -102.67 | 28354 | 165 01:12:55 | -87.21 | 19415 | 165 01:21:13 | -169.17 | 8852 | 165 02:03:09 | -128.16 | 28355 | 165 02:54:09 | -112.53 | 19416 | | | | | | |
| 165 03:45:10 | -153.66 | 28356 | 165 04:35:22 | -137.83 | 19417 | 165 04:45:22 | 139.80 | 8853 | 165 05:27:10 | -179.16 | 28357 | 165 06:16:35 | -163.14 | 19418 | | | | | | |
| 165 07:09:11 | 155.34 | 28358 | 165 07:57:48 | 171.56 | 19419 | 165 08:09:32 | 88.76 | 8856 | 165 08:51:11 | 129.84 | 28359 | 165 09:39:01 | 146.26 | 19420 | | | | | | |
| 165 10:33:12 | 104.34 | 28360 | 165 11:20:15 | 120.94 | 19421 | 165 09:51:37 | 63.24 | 8857 | 165 12:15:12 | 78.84 | 28361 | 165 13:01:28 | 95.64 | 19422 | | | | | | |
| 165 13:57:13 | 53.34 | 28362 | 165 14:42:41 | 70.34 | 19423 | 165 13:15:46 | 12.21 | 8859 | 165 15:39:13 | 27.84 | 28363 | 165 16:23:54 | 45.03 | 19424 | | | | | | |
| 165 17:21:14 | 2.34 | 28364 | 165 18:05:07 | 19.73 | 19425 | 165 16:39:56 | -38.84 | 8861 | 165 19:03:14 | -23.15 | 28365 | 165 19:46:21 | -5.58 | 19426 | | | | | | |
| 165 20:45:15 | -48.66 | 28366 | 165 21:27:34 | -30.89 | 19427 | 165 18:22:01 | -64.36 | 8862 | 165 22:27:15 | -74.15 | 28367 | 165 23:08:47 | -56.19 | 19428 | | | | | | |
| 166 00:09:16 | -99.66 | 28368 | 166 00:50:00 | -81.49 | 19429 | 166 01:10:20 | -166.43 | 8866 | 166 01:51:16 | -125.15 | 28369 | 166 02:31:13 | -106.80 | 19430 | | | | | | |
| 166 03:33:17 | -150.66 | 28370 | 166 04:12:27 | -132.11 | 19431 | 166 04:34:29 | 142.54 | 8868 | 166 05:15:17 | -176.15 | 28371 | 166 05:53:40 | -157.42 | 19432 | | | | | | |
| 166 06:57:18 | 158.34 | 28372 | 166 07:34:53 | 177.28 | 19433 | 166 07:58:39 | 91.49 | 8870 | 166 08:39:18 | 132.85 | 28373 | 166 09:16:06 | 151.98 | 19434 | | | | | | |
| 166 10:21:19 | 107.34 | 28374 | 166 10:57:19 | 126.68 | 19435 | 166 09:40:44 | 65.97 | 8871 | 166 12:03:19 | 81.85 | 28375 | 166 12:38:32 | 101.37 | 19436 | | | | | | |
| 166 13:45:20 | 56.34 | 28376 | 166 14:19:46 | 76.06 | 19437 | 166 11:22:48 | 40.46 | 8872 | 166 15:27:20 | 30.85 | 28377 | 166 16:00:59 | 50.75 | 19438 | | | | | | |
| 166 17:09:21 | 5.34 | 28378 | 166 17:42:12 | 25.45 | 19439 | 166 16:29:03 | -36.10 | 8875 | 166 18:51:21 | -20.15 | 28379 | 166 19:23:25 | .15 | 19440 | | | | | | |
| 166 20:33:22 | -45.66 | 28380 | 166 21:04:38 | -25.16 | 19441 | 166 19:53:12 | -87.13 | 8877 | 166 22:15:22 | -71.15 | 28381 | 166 22:45:52 | -50.47 | 19442 | | | | | | |
| 166 23:57:23 | -96.65 | 28382 | | | | 166 23:17:22 | -138.18 | 8879 | | | | | | | | | | | | |
| 167 01:39:23 | -122.15 | 28383 | 167 00:27:05 | -75.77 | 19443 | 167 00:59:27 | -163.70 | 8880 | 167 03:21:23 | -147.64 | 28384 | 167 02:08:18 | -101.08 | 19444 | | | | | | |
| 167 05:03:24 | -173.15 | 28385 | 167 03:49:31 | -126.38 | 19445 | 167 04:23:36 | 145.27 | 8882 | 167 06:45:24 | 161.36 | 28386 | 167 05:30:44 | -151.68 | 19446 | | | | | | |
| 167 08:27:25 | 135.85 | 28387 | 167 07:11:58 | -177.00 | 19447 | 167 07:47:46 | 94.23 | 8884 | 167 10:09:25 | 110.36 | 28388 | 167 08:53:11 | 157.70 | 19448 | | | | | | |
| 167 11:51:26 | 84.85 | 28389 | 167 10:34:24 | 132.39 | 19449 | 167 09:29:51 | 68.70 | 8885 | 167 13:33:26 | 59.36 | 28390 | 167 12:15:37 | 107.09 | 19450 | | | | | | |
| 167 15:15:27 | 33.86 | 28391 | 167 13:56:50 | 81.79 | 19451 | 167 12:54:00 | 17.67 | 8887 | 167 16:57:27 | 8.36 | 28392 | 167 15:38:04 | 56.47 | 19452 | | | | | | |
| 167 18:39:28 | -17.14 | 28393 | 167 17:19:17 | 31.17 | 19453 | 167 16:18:10 | -33.37 | 8889 | 167 20:21:28 | -42.64 | 28394 | 167 19:00:30 | 5.87 | 19454 | | | | | | |
| 167 22:03:29 | -68.14 | 28395 | 167 20:41:43 | -19.44 | 19455 | 167 18:00:14 | -58.88 | 8890 | 167 23:45:29 | -93.64 | 28396 | 167 22:22:56 | -44.74 | 19456 | | | | | | |
| | | | | | | 167 23:06:29 | -135.44 | 8893 | | | | | | | | | | | | |

SATELLITE C3
Ascending Node Predictions

Predicting for 186 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 168 | 01:27:53 | 135.42 | 30005 |
| 168 | 03:12:48 | 109.07 | 30006 |
| 168 | 04:57:43 | 82.71 | 30007 |
| 168 | 06:42:38 | 56.36 | 30008 |
| 168 | 08:27:32 | 30.01 | 30009 |
| 168 | 10:12:27 | 3.65 | 30010 |
| 168 | 11:57:22 | -22.70 | 30011 |
| 168 | 13:42:17 | -49.05 | 30012 |
| 168 | 15:27:12 | -75.41 | 30013 |
| 168 | 17:12:07 | -101.76 | 30014 |
| 168 | 18:57:01 | -128.12 | 30015 |
| 168 | 20:41:56 | -154.47 | 30016 |
| 168 | 22:26:51 | 179.18 | 30017 |

SATELLITE C4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|------|
| 168 | 00:40:25 | 10.03 | 4770 |
| 168 | 02:25:19 | -16.32 | 4771 |
| 168 | 04:10:13 | -42.67 | 4772 |
| 168 | 05:55:06 | -69.02 | 4773 |
| 168 | 07:40:00 | -95.37 | 4774 |
| 168 | 09:24:54 | -121.71 | 4775 |
| 168 | 11:09:48 | -148.06 | 4776 |
| 168 | 12:54:41 | -174.41 | 4777 |
| 168 | 14:39:35 | 159.24 | 4778 |
| 168 | 16:24:29 | 132.89 | 4779 |
| 168 | 18:09:22 | 106.54 | 4780 |
| 168 | 19:54:16 | 80.19 | 4781 |
| 168 | 21:39:10 | 53.84 | 4782 |
| 168 | 23:24:04 | 27.49 | 4783 |

| | | | |
|-----|----------|---------|-------|
| 169 | 00:11:46 | 132.82 | 30018 |
| 169 | 01:56:41 | 126.47 | 30019 |
| 169 | 03:41:35 | 100.11 | 30020 |
| 169 | 05:26:30 | 73.76 | 30021 |
| 169 | 07:11:25 | 47.41 | 30022 |
| 169 | 08:56:20 | 21.05 | 30023 |
| 169 | 10:41:15 | -5.30 | 30024 |
| 169 | 12:26:10 | -31.65 | 30025 |
| 169 | 14:11:04 | -58.01 | 30026 |
| 169 | 15:55:59 | -84.36 | 30027 |
| 169 | 17:40:54 | -110.72 | 30028 |
| 169 | 19:25:49 | -137.07 | 30029 |
| 169 | 21:10:44 | -163.42 | 30030 |
| 169 | 22:55:38 | 170.22 | 30031 |

| | | | |
|-----|----------|---------|------|
| 169 | 01:08:57 | 1.14 | 4784 |
| 169 | 02:53:51 | -25.21 | 4785 |
| 169 | 04:38:45 | -51.56 | 4786 |
| 169 | 06:23:39 | -77.91 | 4787 |
| 169 | 08:08:32 | -104.26 | 4788 |
| 169 | 09:53:26 | -130.61 | 4789 |
| 169 | 11:38:20 | -156.95 | 4790 |
| 169 | 13:23:13 | 176.69 | 4791 |
| 169 | 15:08:07 | 150.35 | 4792 |
| 169 | 16:53:01 | 124.00 | 4793 |
| 169 | 18:37:55 | 97.65 | 4794 |
| 169 | 20:22:48 | 71.30 | 4795 |
| 169 | 22:07:42 | 44.95 | 4796 |
| 169 | 23:52:36 | 18.60 | 4797 |

| | | | |
|-----|----------|---------|-------|
| 170 | 00:40:33 | 143.87 | 30032 |
| 170 | 02:25:28 | 117.51 | 30033 |
| 170 | 04:10:23 | 91.16 | 30034 |
| 170 | 05:55:18 | 64.81 | 30035 |
| 170 | 07:40:13 | 38.45 | 30036 |
| 170 | 09:25:07 | 12.10 | 30037 |
| 170 | 11:10:02 | -14.26 | 30038 |
| 170 | 12:54:57 | -40.61 | 30039 |
| 170 | 14:39:52 | -66.96 | 30040 |
| 170 | 16:24:47 | -93.32 | 30041 |
| 170 | 18:09:41 | -119.67 | 30042 |
| 170 | 19:54:36 | -146.03 | 30043 |
| 170 | 21:39:31 | -172.38 | 30044 |
| 170 | 23:24:26 | 161.27 | 30045 |

| | | | |
|-----|----------|---------|------|
| 170 | 01:37:30 | -7.75 | 4798 |
| 170 | 03:22:23 | -34.10 | 4799 |
| 170 | 05:07:17 | -60.45 | 4800 |
| 170 | 06:52:11 | -86.80 | 4801 |
| 170 | 08:37:05 | -113.15 | 4802 |
| 170 | 10:21:58 | -139.50 | 4803 |
| 170 | 12:06:52 | -165.85 | 4804 |
| 170 | 13:51:46 | 167.81 | 4805 |
| 170 | 15:36:39 | 141.45 | 4806 |
| 170 | 17:21:33 | 115.11 | 4807 |
| 170 | 19:06:27 | 88.76 | 4808 |
| 170 | 20:51:21 | 62.41 | 4809 |
| 170 | 22:36:14 | 36.06 | 4810 |

| | | | |
|-----|----------|---------|-------|
| 171 | 01:09:21 | 134.91 | 30046 |
| 171 | 02:54:15 | 108.56 | 30047 |
| 171 | 04:39:10 | 82.20 | 30048 |
| 171 | 06:24:05 | 55.85 | 30049 |
| 171 | 08:09:00 | 29.50 | 30050 |
| 171 | 09:53:55 | -3.14 | 30051 |
| 171 | 11:38:50 | -23.21 | 30052 |
| 171 | 13:23:44 | -49.57 | 30053 |
| 171 | 15:08:39 | -75.92 | 30054 |
| 171 | 16:53:34 | -102.27 | 30055 |
| 171 | 18:38:29 | -128.63 | 30056 |
| 171 | 20:23:24 | -154.98 | 30057 |
| 171 | 22:08:18 | 178.66 | 30058 |
| 171 | 23:53:13 | 152.31 | 30059 |

| | | | |
|-----|----------|---------|------|
| 171 | 00:21:08 | 9.71 | 4811 |
| 171 | 02:06:02 | -16.64 | 4812 |
| 171 | 03:50:56 | -42.99 | 4813 |
| 171 | 05:35:49 | -69.34 | 4814 |
| 171 | 07:20:43 | -95.69 | 4815 |
| 171 | 09:05:37 | -122.04 | 4816 |
| 171 | 10:50:31 | -148.39 | 4817 |
| 171 | 12:35:24 | -174.74 | 4818 |
| 171 | 14:20:18 | 158.91 | 4819 |
| 171 | 16:05:12 | 132.57 | 4820 |
| 171 | 17:50:05 | 106.21 | 4821 |
| 171 | 19:34:59 | 79.87 | 4822 |
| 171 | 21:19:53 | 53.52 | 4823 |
| 171 | 23:04:47 | 27.17 | 4824 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

168 01:27:30 -119.14 28397
 168 03:09:30 -144.64 28398
 168 04:51:31 -170.14 28399
 168 06:33:31 164.37 28400
 168 08:15:32 138.86 28401
 168 09:57:32 113.37 28402
 168 11:39:33 87.86 28403
 168 13:21:33 62.37 28404
 168 15:03:34 36.86 28405
 168 16:45:34 11.37 28406
 168 18:27:35 -14.14 28407
 168 20:09:35 -39.63 28408
 168 21:51:36 -65.14 28409
 168 23:33:36 -90.63 28410

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

168 00:04:09 -70.04 19457
 168 01:45:23 -95.36 19458
 168 03:26:36 -120.66 19459
 168 05:07:49 -145.96 19460
 168 06:49:02 -171.27 19461
 168 08:30:15 163.43 19462
 168 10:11:29 138.11 19463
 168 11:52:42 112.81 19464
 168 13:33:55 87.51 19465
 168 15:15:08 62.20 19466
 168 16:56:21 36.90 19467
 168 18:37:35 11.59 19468
 168 20:18:48 -13.72 19469
 168 22:00:01 -39.02 19470
 168 23:41:14 -64.32 19471

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

168 00:48:34 -160.97 8894
 168 02:30:38 173.53 8895
 168 04:12:43 148.00 8896
 168 05:54:48 122.48 8897
 168 07:36:53 96.96 8898
 168 09:18:57 71.45 8899
 168 11:01:02 45.93 8900
 168 12:43:07 20.41 8901
 168 14:25:12 -5.11 8902
 168 16:07:17 -30.64 8903
 168 17:49:21 -56.15 8904
 168 19:31:26 -81.67 8905
 168 21:13:31 -107.19 8906
 168 22:55:36 -132.71 8907

169 01:15:37 -116.14 28411
 169 02:57:37 -141.63 28412
 169 04:39:38 -167.14 28413
 169 06:21:38 167.37 28414
 169 08:03:39 141.86 28415
 169 09:45:39 116.37 28416
 169 11:27:40 90.87 28417
 169 13:09:40 65.37 28418
 169 14:51:41 39.87 28419
 169 16:33:41 14.37 28420
 169 18:15:42 -11.13 28421
 169 19:57:42 -36.63 28422
 169 21:39:42 -62.12 28423
 169 23:21:43 -87.63 28424

169 01:22:27 -89.63 19472
 169 03:03:41 -114.94 19473
 169 04:44:54 -140.25 19474
 169 06:26:07 -165.55 19475
 169 08:07:20 169.15 19476
 169 09:48:33 143.85 19477
 169 11:29:47 118.53 19478
 169 13:11:00 93.23 19479
 169 14:52:13 67.92 19480
 169 16:33:26 42.62 19481
 169 18:14:39 17.32 19482
 169 19:55:52 -7.98 19483
 169 21:37:06 -33.30 19484
 169 23:18:19 -58.60 19485

169 00:37:40 -158.22 8908
 169 02:19:45 176.26 8909
 169 04:01:50 150.74 8910
 169 05:43:55 125.21 8911
 169 07:26:00 99.69 8912
 169 09:08:04 74.18 8913
 169 10:50:09 48.66 8914
 169 12:32:14 23.14 8915
 169 14:14:19 -2.38 8916
 169 15:56:24 -27.90 8917
 169 17:38:28 -53.41 8918
 169 19:20:33 -78.93 8919
 169 21:02:38 -104.46 8920
 169 22:44:43 -129.98 8921

170 01:03:43 -113.12 28425
 170 02:45:44 -138.62 28426
 170 04:27:44 -164.12 28427
 170 06:09:45 170.38 28428
 170 07:51:45 144.88 28429
 170 09:33:46 119.38 28430
 170 11:15:46 93.88 28431
 170 12:57:47 68.38 28432
 170 14:39:47 42.88 28433
 170 16:21:48 17.38 28434
 170 18:03:48 -8.11 28435
 170 19:45:49 -33.62 28436
 170 21:27:49 -59.11 28437
 170 23:09:50 -84.62 28438

170 00:59:32 -83.91 19486
 170 02:40:45 -109.21 19487
 170 04:21:58 -134.51 19488
 170 06:03:12 -159.83 19489
 170 07:44:25 174.87 19490
 170 09:25:38 149.57 19491
 170 11:06:51 124.26 19492
 170 12:48:04 98.96 19493
 170 14:29:18 73.64 19494
 170 16:10:31 48.34 19495
 170 17:51:44 23.04 19496
 170 19:32:57 -2.27 19497
 170 21:14:10 -27.57 19498
 170 22:55:24 -52.88 19499

170 00:26:47 -155.49 8922
 170 02:08:52 178.99 8923
 170 03:50:57 153.47 8924
 170 05:33:02 127.95 8925
 170 07:15:07 102.43 8926
 170 08:57:11 76.92 8927
 170 10:39:16 51.40 8928
 170 12:21:21 25.87 8929
 170 14:03:26 -3.35 8930
 170 15:45:30 -25.16 8931
 170 17:27:35 -50.68 8932
 170 19:09:40 -76.20 8933
 170 20:51:45 -101.72 8934
 170 22:33:50 -127.24 8935

171 00:51:50 -110.11 28439
 171 02:33:51 -135.62 28440
 171 04:15:51 -161.11 28441
 171 05:57:52 173.38 28442
 171 07:39:52 147.89 28443
 171 09:21:53 122.38 28444
 171 11:03:53 96.89 28445
 171 12:45:54 71.38 28446
 171 14:27:54 45.89 28447
 171 16:09:55 20.38 28448
 171 17:51:55 -5.11 28449
 171 19:33:56 -30.62 28450
 171 21:15:56 -56.11 28451
 171 22:57:57 -81.61 28452

171 00:36:37 -78.19 19500
 171 02:17:50 -103.49 19501
 171 03:59:03 -128.79 19502
 171 05:40:16 -154.10 19503
 171 07:21:30 -179.41 19504
 171 09:02:43 155.28 19505
 171 10:43:56 129.98 19506
 171 12:25:09 104.68 19507
 171 14:06:22 79.38 19508
 171 15:47:36 54.06 19509
 171 17:28:49 28.76 19510
 171 19:10:02 3.45 19511
 171 20:51:15 -21.85 19512
 171 22:32:28 -47.15 19513

171 00:15:54 -152.75 8936
 171 01:57:59 -178.27 8937
 171 03:40:04 156.20 8938
 171 05:22:09 130.68 8939
 171 07:04:13 105.17 8940
 171 08:46:18 79.65 8941
 171 10:28:23 54.13 8942
 171 12:10:28 28.61 8943
 171 13:52:33 3.09 8944
 171 15:34:37 -22.42 8945
 171 17:16:42 -47.94 8946
 171 18:58:47 -73.47 8947
 171 20:40:52 -98.99 8948
 171 22:22:57 -124.51 8949

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 172 01:38:08 | 125.96 | 30060 |
| 172 03:23:03 | 99.60 | 30061 |
| 172 05:07:58 | 73.25 | 30062 |
| 172 06:52:53 | 46.90 | 30063 |
| 172 08:37:47 | 20.54 | 30064 |
| 172 10:22:42 | -5.81 | 30065 |
| 172 12:07:37 | -32.17 | 30066 |
| 172 13:52:32 | -58.52 | 30067 |
| 172 15:37:27 | -84.87 | 30068 |
| 172 17:22:21 | -111.23 | 30069 |
| 172 19:07:16 | -137.58 | 30070 |
| 172 20:52:11 | -163.94 | 30071 |
| 172 22:37:06 | 169.71 | 30072 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 172 00:49:40 | .82 | 4825 |
| 172 02:34:34 | -25.53 | 4826 |
| 172 04:19:28 | -51.88 | 4827 |
| 172 06:04:22 | -78.23 | 4828 |
| 172 07:49:15 | -104.58 | 4829 |
| 172 09:34:09 | -130.93 | 4830 |
| 172 11:19:03 | -157.28 | 4831 |
| 172 13:03:56 | 176.37 | 4832 |
| 172 14:48:50 | 150.02 | 4833 |
| 172 16:33:44 | 123.67 | 4834 |
| 172 18:18:38 | 97.33 | 4835 |
| 172 20:03:31 | 70.97 | 4836 |
| 172 21:48:25 | 44.63 | 4837 |
| 172 23:33:19 | 18.28 | 4838 |

| | | |
|--------------|---------|-------|
| 173 00:22:01 | 143.36 | 30073 |
| 173 02:06:56 | 117.00 | 30074 |
| 173 03:51:50 | 90.65 | 30075 |
| 173 05:36:45 | 64.29 | 30076 |
| 173 07:21:40 | 37.94 | 30077 |
| 173 09:06:35 | 11.59 | 30078 |
| 173 10:51:30 | -14.77 | 30079 |
| 173 12:36:24 | -41.12 | 30080 |
| 173 14:21:19 | -67.48 | 30081 |
| 173 16:06:14 | -93.83 | 30082 |
| 173 17:51:09 | -120.18 | 30083 |
| 173 19:36:04 | -146.54 | 30084 |
| 173 21:20:59 | -172.89 | 30085 |
| 173 23:05:53 | 160.76 | 30086 |

| | | |
|--------------|---------|------|
| 173 01:18:13 | -8.07 | 4839 |
| 173 03:03:06 | -34.42 | 4840 |
| 173 04:48:00 | -60.77 | 4841 |
| 173 06:32:54 | -87.12 | 4842 |
| 173 08:17:48 | -113.47 | 4843 |
| 173 10:02:41 | -139.82 | 4844 |
| 173 11:47:35 | -166.17 | 4845 |
| 173 13:32:29 | 167.48 | 4846 |
| 173 15:17:22 | 141.13 | 4847 |
| 173 17:02:16 | 114.78 | 4848 |
| 173 18:47:10 | 88.43 | 4849 |
| 173 20:32:04 | 62.09 | 4850 |
| 173 22:16:57 | 35.73 | 4851 |

| | | |
|--------------|---------|-------|
| 174 00:50:48 | 134.40 | 30087 |
| 174 02:35:43 | 108.05 | 30088 |
| 174 04:20:38 | 81.69 | 30089 |
| 174 06:05:33 | 55.34 | 30090 |
| 174 07:50:27 | 28.99 | 30091 |
| 174 09:35:22 | 2.63 | 30092 |
| 174 11:20:17 | -23.72 | 30093 |
| 174 13:05:12 | -50.07 | 30094 |
| 174 14:50:07 | -76.43 | 30095 |
| 174 16:35:02 | -102.78 | 30096 |
| 174 18:19:56 | -129.14 | 30097 |
| 174 20:04:51 | -155.49 | 30098 |
| 174 21:49:46 | 178.16 | 30099 |
| 174 23:34:41 | 151.80 | 30100 |

| | | |
|--------------|---------|------|
| 174 00:01:51 | 9.39 | 4852 |
| 174 01:46:45 | -16.96 | 4853 |
| 174 03:31:39 | -43.31 | 4854 |
| 174 05:16:32 | -69.66 | 4855 |
| 174 07:01:26 | -96.01 | 4856 |
| 174 08:46:20 | -122.36 | 4857 |
| 174 10:31:13 | -148.71 | 4858 |
| 174 12:16:07 | -175.06 | 4859 |
| 174 14:01:01 | 158.39 | 4860 |
| 174 15:45:55 | 132.24 | 4861 |
| 174 17:30:48 | 105.89 | 4862 |
| 174 19:15:42 | 79.54 | 4863 |
| 174 21:00:36 | 53.19 | 4864 |
| 174 22:45:30 | 26.85 | 4865 |

| | | |
|--------------|---------|-------|
| 175 01:19:36 | 125.45 | 30101 |
| 175 03:04:30 | 99.09 | 30102 |
| 175 04:49:25 | 72.74 | 30103 |
| 175 06:34:20 | 46.39 | 30104 |
| 175 08:19:15 | 20.03 | 30105 |
| 175 10:04:10 | -6.32 | 30106 |
| 175 11:49:05 | -32.67 | 30107 |
| 175 13:33:59 | -59.03 | 30108 |
| 175 15:18:54 | -85.38 | 30109 |
| 175 17:03:49 | -111.74 | 30110 |
| 175 18:48:44 | -138.09 | 30111 |
| 175 20:33:39 | -164.44 | 30112 |
| 175 22:18:34 | 169.20 | 30113 |

| | | |
|--------------|---------|------|
| 175 00:30:23 | .99 | 4866 |
| 175 02:15:17 | -25.85 | 4867 |
| 175 04:00:11 | -52.20 | 4868 |
| 175 05:45:04 | -78.55 | 4869 |
| 175 07:29:58 | -104.90 | 4870 |
| 175 09:14:52 | -131.25 | 4871 |
| 175 10:59:46 | -157.60 | 4872 |
| 175 12:44:39 | 176.05 | 4873 |
| 175 14:29:33 | 149.70 | 4874 |
| 175 16:14:27 | 123.35 | 4875 |
| 175 17:59:21 | 97.00 | 4876 |
| 175 19:44:14 | 70.65 | 4877 |
| 175 21:29:08 | 44.30 | 4878 |
| 175 23:14:02 | 17.95 | 4879 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|-------|----------------------------|---------|-------|-------|----------------------------|---------|------|-------|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT |
| day hr mn sc | deg | dg | | day hr mn sc | deg | dg | | day hr mn sc | deg | dg | |
| 172 00:39:57 | -107.11 | 28453 | | 172 00:13:41 | -72.45 | 19514 | | 172 00:05:01 | -150.02 | 8950 | |
| 172 02:21:58 | -132.61 | 28454 | | 172 01:54:55 | -97.77 | 19515 | | 172 01:47:06 | -175.54 | 8951 | |
| 172 04:03:58 | -158.11 | 28455 | | 172 03:36:08 | -123.07 | 19516 | | 172 03:29:11 | 158.94 | 8952 | |
| 172 05:45:59 | -176.39 | 28456 | | 172 05:17:21 | -148.38 | 19517 | | 172 05:11:16 | 133.42 | 8953 | |
| 172 07:27:59 | 150.89 | 28457 | | 172 06:58:34 | -173.68 | 19518 | | 172 06:53:20 | 107.91 | 8954 | |
| 172 09:10:00 | 125.39 | 28458 | | 172 08:39:47 | 161.02 | 19519 | | 172 08:35:25 | 82.39 | 8955 | |
| 172 10:52:00 | 99.89 | 28459 | | 172 10:21:01 | 135.70 | 19520 | | 172 10:17:30 | 56.86 | 8956 | |
| 172 12:34:01 | 74.39 | 28460 | | 172 12:02:14 | 110.40 | 19521 | | 172 11:59:35 | 31.34 | 8957 | |
| 172 14:16:01 | 48.90 | 28461 | | 172 13:43:27 | 85.10 | 19522 | | 172 13:41:40 | 5.82 | 8958 | |
| 172 15:58:01 | 23.40 | 28462 | | 172 15:24:40 | 59.79 | 19523 | | 172 15:23:44 | -19.69 | 8959 | |
| 172 17:40:02 | -2.10 | 28463 | | 172 17:05:53 | 34.49 | 19524 | | 172 17:05:49 | -45.21 | 8960 | |
| 172 19:22:02 | -27.60 | 28464 | | 172 18:47:07 | 9.17 | 19525 | | 172 18:47:54 | -70.73 | 8961 | |
| 172 21:04:03 | -53.10 | 28465 | | 172 20:28:20 | -16.13 | 19526 | | 172 20:29:59 | -96.25 | 8962 | |
| 172 22:46:03 | -78.60 | 28466 | | 172 22:09:33 | -41.43 | 19527 | | 172 22:12:03 | -121.76 | 8963 | |
| | | | | 172 23:50:46 | -66.74 | 19528 | | 172 23:54:08 | -147.28 | 8964 | |
| 173 00:28:04 | -104.10 | 28467 | | 173 01:31:59 | -92.04 | 19529 | | 173 01:36:13 | -172.81 | 8965 | |
| 173 02:10:04 | -129.60 | 28468 | | 173 03:13:13 | -117.35 | 19530 | | 173 03:18:18 | 161.67 | 8966 | |
| 173 03:52:05 | -155.10 | 28469 | | 173 04:54:26 | -142.66 | 19531 | | 173 05:00:23 | 136.15 | 8967 | |
| 173 05:34:05 | 179.41 | 28470 | | 173 06:35:39 | -167.96 | 19532 | | 173 06:42:27 | 110.64 | 8968 | |
| 173 07:16:06 | 153.90 | 28471 | | 173 08:16:52 | 166.74 | 19533 | | 173 08:24:32 | 85.12 | 8969 | |
| 173 08:58:06 | 128.41 | 28472 | | 173 09:58:05 | 141.43 | 19534 | | 173 10:06:37 | 59.60 | 8970 | |
| 173 10:40:07 | 102.90 | 28473 | | 173 11:39:19 | 116.12 | 19535 | | 173 11:48:42 | 34.08 | 8971 | |
| 173 12:22:07 | 77.41 | 28474 | | 173 13:20:32 | 90.81 | 19536 | | 173 13:30:47 | 8.55 | 8972 | |
| 173 14:04:08 | 51.90 | 28475 | | 173 15:01:45 | 65.51 | 19537 | | 173 15:12:51 | -16.95 | 8973 | |
| 173 15:46:08 | 26.41 | 28476 | | 173 16:42:58 | 40.21 | 19538 | | 173 16:54:56 | -42.48 | 8974 | |
| 173 17:28:09 | .90 | 28477 | | 173 18:24:11 | 14.91 | 19539 | | 173 18:37:01 | -68.00 | 8975 | |
| 173 19:10:09 | -24.59 | 28478 | | 173 20:05:25 | -10.41 | 19540 | | 173 20:19:06 | -93.52 | 8976 | |
| 173 20:52:10 | -50.10 | 28479 | | 173 21:46:38 | -35.71 | 19541 | | 173 22:01:10 | -119.03 | 8977 | |
| 173 22:34:10 | -75.59 | 28480 | | 173 23:27:51 | -61.02 | 19542 | | 173 23:43:15 | -144.55 | 8978 | |
| 174 00:16:11 | -101.10 | 28481 | | 174 01:09:04 | -86.32 | 19543 | | 174 01:25:20 | -170.07 | 8979 | |
| 174 01:58:11 | -126.59 | 28482 | | 174 02:50:17 | -111.62 | 19544 | | 174 03:07:25 | 164.41 | 8980 | |
| 174 03:40:12 | -152.10 | 28483 | | 174 04:31:31 | -136.94 | 19545 | | 174 04:49:30 | 138.88 | 8981 | |
| 174 05:22:12 | -177.59 | 28484 | | 174 06:12:44 | -162.24 | 19546 | | 174 06:31:34 | 113.37 | 8982 | |
| 174 07:04:13 | 156.90 | 28485 | | 174 07:53:57 | 172.46 | 19547 | | 174 08:13:39 | 87.85 | 8983 | |
| 174 08:46:13 | 131.41 | 28486 | | 174 09:35:10 | 147.15 | 19548 | | 174 09:55:44 | 62.33 | 8984 | |
| 174 10:28:14 | 105.90 | 28487 | | 174 11:16:23 | 121.85 | 19549 | | 174 11:37:49 | 36.81 | 8985 | |
| 174 12:10:14 | 80.41 | 28488 | | 174 12:57:36 | 96.55 | 19550 | | 174 13:19:53 | 11.30 | 8986 | |
| 174 13:52:15 | 54.91 | 28489 | | 174 14:38:50 | 71.23 | 19551 | | 174 15:01:58 | -14.22 | 8987 | |
| 174 15:34:15 | 29.41 | 28490 | | 174 16:20:03 | 45.93 | 19552 | | 174 16:44:03 | -39.74 | 8988 | |
| 174 17:16:16 | 3.91 | 28491 | | 174 18:01:16 | 20.63 | 19553 | | 174 18:26:08 | -65.26 | 8989 | |
| 174 18:58:16 | -21.59 | 28492 | | 174 19:42:29 | -4.68 | 19554 | | 174 20:08:13 | -90.79 | 8990 | |
| 174 20:40:17 | -47.09 | 28493 | | 174 21:23:42 | -29.98 | 19555 | | 174 21:50:17 | -116.30 | 8991 | |
| 174 22:22:17 | -72.59 | 28494 | | 174 23:04:56 | -55.30 | 19556 | | 174 23:32:22 | -141.82 | 8992 | |
| 175 00:04:18 | -98.09 | 28495 | | 175 00:46:09 | -80.60 | 19557 | | 175 01:14:27 | -167.34 | 8993 | |
| 175 01:46:18 | -123.58 | 28496 | | 175 02:27:22 | -105.90 | 19558 | | 175 02:56:32 | 167.14 | 8994 | |
| 175 03:28:19 | -149.09 | 28497 | | 175 04:08:35 | -131.21 | 19559 | | 175 04:38:37 | 141.62 | 8995 | |
| 175 05:10:19 | -174.58 | 28498 | | 175 05:49:48 | -156.51 | 19560 | | 175 06:20:41 | 116.11 | 8996 | |
| 175 06:52:19 | 159.92 | 28499 | | 175 07:31:02 | 178.18 | 19561 | | 175 08:02:46 | 90.59 | 8997 | |
| 175 08:34:20 | 134.42 | 28500 | | 175 09:12:15 | 152.87 | 19562 | | 175 09:44:51 | 65.06 | 8998 | |
| 175 10:16:20 | 108.92 | 28501 | | 175 10:53:28 | 127.57 | 19563 | | 175 11:26:56 | 39.54 | 8999 | |
| 175 11:58:21 | 83.42 | 28502 | | 175 12:34:41 | 102.27 | 19564 | | 175 13:09:00 | 14.03 | 9000 | |
| 175 13:40:21 | 57.92 | 28503 | | 175 14:15:54 | 76.96 | 19565 | | 175 14:51:05 | -11.49 | 9001 | |
| 175 15:22:22 | 32.42 | 28504 | | 175 15:57:08 | 51.65 | 19566 | | 175 16:33:10 | -37.01 | 9002 | |
| 175 17:04:22 | 6.93 | 28505 | | 175 17:38:21 | 26.35 | 19567 | | 175 18:15:15 | -62.53 | 9003 | |
| 175 18:46:23 | -18.58 | 28506 | | 175 19:19:34 | 1.04 | 19568 | | 175 19:57:20 | -88.05 | 9004 | |
| 175 20:28:23 | -44.07 | 28507 | | 175 21:00:47 | -24.26 | 19569 | | 175 21:39:24 | -113.56 | 9005 | |
| 175 22:10:24 | -69.58 | 28508 | | 175 22:42:00 | -49.56 | 19570 | | 175 23:21:29 | -139.08 | 9006 | |
| 175 23:52:24 | -95.07 | 28509 | | | | | | | | | |

SATELLITE C3
Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 176 00:03:28 | 142.85 | 30114 |
| 176 01:48:23 | 116.49 | 30115 |
| 176 03:33:18 | 90.14 | 30116 |
| 176 05:18:13 | 63.79 | 30117 |
| 176 07:03:08 | 37.43 | 30118 |
| 176 08:48:02 | 11.08 | 30119 |
| 176 10:32:57 | -15.28 | 30120 |
| 176 12:17:52 | -41.63 | 30121 |
| 176 14:02:47 | -67.98 | 30122 |
| 176 15:47:42 | -94.34 | 30123 |
| 176 17:32:37 | -120.69 | 30124 |
| 176 19:17:31 | -147.05 | 30125 |
| 176 21:02:26 | -173.40 | 30126 |
| 176 22:47:21 | 160.25 | 30127 |

SATELLITE C4
Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 176 00:58:55 | -8.40 | 4880 |
| 176 02:43:49 | -34.75 | 4881 |
| 176 04:28:43 | -61.09 | 4882 |
| 176 06:13:37 | -87.44 | 4883 |
| 176 07:58:30 | -113.79 | 4884 |
| 176 09:43:24 | -140.14 | 4885 |
| 176 11:28:18 | -166.49 | 4886 |
| 176 13:13:12 | -167.16 | 4887 |
| 176 14:58:05 | 140.81 | 4888 |
| 176 16:42:59 | 114.46 | 4889 |
| 176 18:27:53 | 88.11 | 4890 |
| 176 20:12:46 | 61.76 | 4891 |
| 176 21:57:40 | 35.41 | 4892 |
| 176 23:42:34 | 9.06 | 4893 |

| | | |
|--------------|---------|-------|
| 177 00:32:16 | 133.89 | 30128 |
| 177 02:17:11 | 107.54 | 30129 |
| 177 04:02:05 | 81.18 | 30130 |
| 177 05:47:00 | 54.83 | 30131 |
| 177 07:31:55 | 28.48 | 30132 |
| 177 09:16:50 | 2.12 | 30133 |
| 177 11:01:45 | -24.23 | 30134 |
| 177 12:46:40 | -50.58 | 30135 |
| 177 14:31:34 | -76.94 | 30136 |
| 177 16:16:29 | -103.29 | 30137 |
| 177 18:01:24 | -129.65 | 30138 |
| 177 19:46:19 | -156.00 | 30139 |
| 177 21:31:14 | 177.65 | 30140 |
| 177 23:16:08 | 151.29 | 30141 |

| | | |
|--------------|---------|------|
| 177 01:27:28 | -17.29 | 4894 |
| 177 03:12:21 | -43.64 | 4895 |
| 177 04:57:15 | -69.99 | 4896 |
| 177 06:42:09 | -96.33 | 4897 |
| 177 08:27:03 | -122.68 | 4898 |
| 177 10:11:56 | -149.03 | 4899 |
| 177 11:56:50 | -175.38 | 4900 |
| 177 13:41:44 | 158.27 | 4901 |
| 177 15:26:38 | 131.92 | 4902 |
| 177 17:11:31 | 105.57 | 4903 |
| 177 18:56:25 | 79.22 | 4904 |
| 177 20:41:19 | 52.87 | 4905 |
| 177 22:26:12 | 26.52 | 4906 |

| | | |
|--------------|---------|-------|
| 178 01:01:03 | 124.94 | 30142 |
| 178 02:45:58 | 98.58 | 30143 |
| 178 04:30:53 | 72.23 | 30144 |
| 178 06:15:48 | 45.88 | 30145 |
| 178 08:00:43 | 19.52 | 30146 |
| 178 09:45:37 | -6.83 | 30147 |
| 178 11:30:32 | -33.19 | 30148 |
| 178 13:15:27 | -59.54 | 30149 |
| 178 15:00:22 | -85.89 | 30150 |
| 178 16:45:17 | -112.25 | 30151 |
| 178 18:30:12 | -138.60 | 30152 |
| 178 20:15:06 | -164.96 | 30153 |
| 178 22:00:01 | 168.69 | 30154 |
| 178 23:44:56 | 142.34 | 30155 |

| | | |
|--------------|---------|------|
| 178 00:11:06 | .17 | 4907 |
| 178 01:56:00 | -26.18 | 4908 |
| 178 03:40:54 | -52.53 | 4909 |
| 178 05:25:47 | -78.88 | 4910 |
| 178 07:10:41 | -105.23 | 4911 |
| 178 08:55:35 | -131.57 | 4912 |
| 178 10:40:29 | -157.92 | 4913 |
| 178 12:25:22 | 175.73 | 4914 |
| 178 14:10:16 | 149.38 | 4915 |
| 178 15:55:10 | 123.03 | 4916 |
| 178 17:40:03 | 96.68 | 4917 |
| 178 19:24:57 | 70.33 | 4918 |
| 178 21:09:51 | 43.98 | 4919 |
| 178 22:54:45 | 17.63 | 4920 |

| | | |
|--------------|---------|-------|
| 179 01:29:51 | 115.98 | 30156 |
| 179 03:14:46 | 89.63 | 30157 |
| 179 04:59:40 | 63.27 | 30158 |
| 179 06:44:35 | 36.92 | 30159 |
| 179 08:29:30 | 10.57 | 30160 |
| 179 10:14:25 | -15.79 | 30161 |
| 179 11:59:20 | -42.14 | 30162 |
| 179 13:44:15 | -68.49 | 30163 |
| 179 15:29:09 | -94.85 | 30164 |
| 179 17:14:04 | -121.20 | 30165 |
| 179 18:58:59 | -147.56 | 30166 |
| 179 20:43:54 | -173.91 | 30167 |
| 179 22:28:49 | 159.74 | 30168 |

| | | |
|--------------|---------|------|
| 179 00:39:38 | -8.72 | 4921 |
| 179 02:24:32 | -35.07 | 4922 |
| 179 04:09:26 | -61.42 | 4923 |
| 179 05:54:20 | -87.77 | 4924 |
| 179 07:39:13 | -114.12 | 4925 |
| 179 09:24:07 | -140.47 | 4926 |
| 179 11:09:01 | -166.81 | 4927 |
| 179 12:53:54 | 166.83 | 4928 |
| 179 14:38:48 | 140.49 | 4929 |
| 179 16:23:42 | 114.14 | 4930 |
| 179 18:08:36 | 87.79 | 4931 |
| 179 19:53:29 | 61.44 | 4932 |
| 179 21:38:23 | 35.09 | 4933 |
| 179 23:23:17 | 8.74 | 4934 |

SATELLITE S2**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 176 01:34:25 | -120.58 | 28510 |
| 176 03:16:25 | -146.07 | 28511 |
| 176 04:58:26 | -171.58 | 28512 |
| 176 06:40:26 | 162.93 | 28513 |
| 176 08:22:27 | 137.42 | 28514 |
| 176 10:04:27 | 111.93 | 28515 |
| 176 11:46:28 | 86.42 | 28516 |
| 176 13:28:28 | 60.93 | 28517 |
| 176 15:10:29 | 35.42 | 28518 |
| 176 16:52:29 | 9.93 | 28519 |
| 176 18:34:30 | -15.58 | 28520 |
| 176 20:16:30 | -41.07 | 28521 |
| 176 21:58:31 | -66.58 | 28522 |
| 176 23:40:31 | -92.07 | 28523 |

SATELLITE S3**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 176 00:23:14 | -74.88 | 19571 |
| 176 02:04:27 | -100.18 | 19572 |
| 176 03:45:40 | -125.49 | 19573 |
| 176 05:26:53 | -150.79 | 19574 |
| 176 07:08:06 | -176.09 | 19575 |
| 176 08:49:20 | 158.59 | 19576 |
| 176 10:30:33 | 133.29 | 19577 |
| 176 12:11:46 | 107.99 | 19578 |
| 176 13:52:59 | 82.68 | 19579 |
| 176 15:34:12 | 57.38 | 19580 |
| 176 17:15:26 | 32.06 | 19581 |
| 176 18:56:39 | 6.76 | 19582 |
| 176 20:37:52 | -18.54 | 19583 |
| 176 22:19:05 | -43.84 | 19584 |

SATELLITE S4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 176 01:03:34 | -164.61 | 9007 |
| 176 02:45:39 | 169.87 | 9008 |
| 176 04:27:43 | 144.36 | 9009 |
| 176 06:09:48 | 118.84 | 9010 |
| 176 07:51:53 | 93.32 | 9011 |
| 176 09:33:58 | 67.80 | 9012 |
| 176 11:16:03 | 42.28 | 9013 |
| 176 12:58:07 | 16.77 | 9014 |
| 176 14:40:12 | -8.75 | 9015 |
| 176 16:22:17 | -34.28 | 9016 |
| 176 18:04:22 | -59.80 | 9017 |
| 176 19:46:27 | -85.32 | 9018 |
| 176 21:28:31 | -110.83 | 9019 |
| 176 23:10:36 | -136.35 | 9020 |

| | | |
|--------------|---------|-------|
| 177 01:22:32 | -117.57 | 28524 |
| 177 03:04:32 | -143.07 | 28525 |
| 177 04:46:33 | -168.57 | 28526 |
| 177 06:28:33 | 165.93 | 28527 |
| 177 08:10:34 | 140.43 | 28528 |
| 177 09:52:34 | 114.93 | 28529 |
| 177 11:34:35 | 89.43 | 28530 |
| 177 13:16:35 | 63.94 | 28531 |
| 177 14:58:36 | 38.43 | 28532 |
| 177 16:40:36 | 12.94 | 28533 |
| 177 18:22:37 | -12.57 | 28534 |
| 177 20:04:37 | -38.06 | 28535 |
| 177 21:46:38 | -63.57 | 28536 |
| 177 23:28:38 | -89.06 | 28537 |

| | | |
|--------------|---------|-------|
| 177 00:00:18 | -69.15 | 19585 |
| 177 01:41:32 | -94.46 | 19586 |
| 177 03:22:45 | -119.77 | 19587 |
| 177 05:03:58 | -145.07 | 19588 |
| 177 06:45:11 | -170.37 | 19589 |
| 177 08:26:24 | 164.33 | 19590 |
| 177 10:07:38 | 139.01 | 19591 |
| 177 11:48:51 | 113.71 | 19592 |
| 177 13:30:04 | 88.40 | 19593 |
| 177 15:11:17 | 63.10 | 19594 |
| 177 16:52:30 | 37.80 | 19595 |
| 177 18:33:44 | 12.48 | 19596 |
| 177 20:14:57 | -12.82 | 19597 |
| 177 21:56:10 | -38.12 | 19598 |
| 177 23:37:23 | -63.43 | 19599 |

| | | |
|--------------|---------|------|
| 177 00:52:41 | -161.87 | 9021 |
| 177 02:34:46 | 172.61 | 9022 |
| 177 04:16:50 | 147.10 | 9023 |
| 177 05:58:55 | 121.58 | 9024 |
| 177 07:41:00 | 96.05 | 9025 |
| 177 09:23:05 | 70.53 | 9026 |
| 177 11:05:10 | 45.01 | 9027 |
| 177 12:47:14 | 19.50 | 9028 |
| 177 14:29:19 | -6.02 | 9029 |
| 177 16:11:24 | -31.54 | 9030 |
| 177 17:53:29 | -57.06 | 9031 |
| 177 19:35:34 | -82.59 | 9032 |
| 177 21:17:38 | -108.09 | 9033 |
| 177 22:59:43 | -133.62 | 9034 |

| | | |
|--------------|---------|-------|
| 178 01:10:39 | -114.57 | 28538 |
| 178 02:52:39 | -140.06 | 28539 |
| 178 04:34:39 | -165.55 | 28540 |
| 178 06:16:40 | 168.94 | 28541 |
| 178 07:58:40 | 143.45 | 28542 |
| 178 09:40:41 | 117.94 | 28543 |
| 178 11:22:41 | 92.45 | 28544 |
| 178 13:04:42 | 66.94 | 28545 |
| 178 14:46:42 | 41.45 | 28546 |
| 178 16:28:43 | 15.94 | 28547 |
| 178 18:10:43 | -9.55 | 28548 |
| 178 19:52:44 | -35.06 | 28549 |
| 178 21:34:44 | -60.55 | 28550 |
| 178 23:16:45 | -86.06 | 28551 |

| | | |
|--------------|---------|-------|
| 178 01:18:36 | -88.73 | 19600 |
| 178 02:59:49 | -114.03 | 19601 |
| 178 04:41:03 | -139.35 | 19602 |
| 178 06:22:16 | -164.65 | 19603 |
| 178 08:03:29 | 170.05 | 19604 |
| 178 09:44:42 | 144.74 | 19605 |
| 178 11:25:55 | 119.44 | 19606 |
| 178 13:07:09 | 94.12 | 19607 |
| 178 14:48:22 | 68.82 | 19608 |
| 178 16:29:35 | 43.52 | 19609 |
| 178 18:10:48 | 18.21 | 19610 |
| 178 19:52:01 | -7.09 | 19611 |
| 178 21:33:15 | -32.40 | 19612 |
| 178 23:14:28 | -57.71 | 19613 |

| | | |
|--------------|---------|------|
| 178 00:41:48 | -159.14 | 9035 |
| 178 02:23:53 | 175.34 | 9036 |
| 178 04:05:57 | 149.83 | 9037 |
| 178 05:48:02 | 124.31 | 9038 |
| 178 07:30:07 | 98.79 | 9039 |
| 178 09:12:12 | 73.27 | 9040 |
| 178 10:54:17 | 47.74 | 9041 |
| 178 12:36:21 | 22.24 | 9042 |
| 178 14:18:26 | -3.29 | 9043 |
| 178 16:00:31 | -28.81 | 9044 |
| 178 17:42:36 | -54.33 | 9045 |
| 178 19:24:40 | -79.84 | 9046 |
| 178 21:06:45 | -105.36 | 9047 |
| 178 22:48:50 | -130.88 | 9048 |

| | | |
|--------------|---------|-------|
| 179 00:58:45 | -111.55 | 28552 |
| 179 02:40:46 | -137.06 | 28553 |
| 179 04:22:46 | -162.55 | 28554 |
| 179 06:04:47 | 171.94 | 28555 |
| 179 07:46:47 | 146.45 | 28556 |
| 179 09:28:48 | 120.95 | 28557 |
| 179 11:10:48 | 95.45 | 28558 |
| 179 12:52:49 | 69.95 | 28559 |
| 179 14:34:49 | 44.45 | 28560 |
| 179 16:16:50 | 18.95 | 28561 |
| 179 17:58:50 | -6.55 | 28562 |
| 179 19:40:51 | -32.05 | 28563 |
| 179 21:22:51 | -57.55 | 28564 |
| 179 23:04:52 | -83.05 | 28565 |

| | | |
|--------------|---------|-------|
| 179 00:55:41 | -83.01 | 19614 |
| 179 02:36:54 | -108.31 | 19615 |
| 179 04:18:07 | -133.62 | 19616 |
| 179 05:59:21 | -158.93 | 19617 |
| 179 07:40:34 | 175.77 | 19618 |
| 179 09:21:47 | 150.46 | 19619 |
| 179 11:03:00 | 125.16 | 19620 |
| 179 12:44:13 | 99.86 | 19621 |
| 179 14:25:27 | 74.54 | 19622 |
| 179 16:06:40 | 49.24 | 19623 |
| 179 17:47:53 | 23.93 | 19624 |
| 179 19:29:06 | -1.37 | 19625 |
| 179 21:10:19 | -26.67 | 19626 |
| 179 22:51:33 | -51.99 | 19627 |

| | | |
|--------------|---------|------|
| 179 00:30:55 | -156.40 | 9049 |
| 179 02:13:00 | 178.07 | 9050 |
| 179 03:55:04 | 152.57 | 9051 |
| 179 05:37:09 | 127.04 | 9052 |
| 179 07:19:14 | 101.52 | 9053 |
| 179 09:01:19 | 76.00 | 9054 |
| 179 10:43:24 | 50.48 | 9055 |
| 179 12:25:28 | 24.97 | 9056 |
| 179 14:07:33 | -55 | 9057 |
| 179 15:49:38 | -26.07 | 9058 |
| 179 17:31:43 | -51.60 | 9059 |
| 179 19:13:47 | -77.10 | 9060 |
| 179 20:55:52 | -102.63 | 9061 |
| 179 22:37:57 | -128.15 | 9062 |

SATELLITE C3
Ascending Node Predictions

Predicting for 186 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 180 00:13:44 | 133.38 | 30169 |
| 180 01:58:38 | 107.03 | 30170 |
| 180 03:43:33 | 80.67 | 30171 |
| 180 05:28:28 | 54.32 | 30172 |
| 180 07:13:23 | 27.97 | 30173 |
| 180 08:58:18 | 1.61 | 30174 |
| 180 10:43:12 | -24.74 | 30175 |
| 180 12:28:07 | -51.10 | 30176 |
| 180 14:13:02 | -77.45 | 30177 |
| 180 15:57:57 | -103.80 | 30178 |
| 180 17:42:52 | -130.16 | 30179 |
| 180 19:27:47 | -156.51 | 30180 |
| 180 21:12:41 | 177.13 | 30181 |
| 180 22:57:36 | 150.78 | 30182 |

SATELLITE C4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 180 01:08:11 | -17.61 | 4935 |
| 180 02:53:04 | -43.96 | 4936 |
| 180 04:37:58 | -70.31 | 4937 |
| 180 06:22:52 | -96.66 | 4938 |
| 180 08:07:45 | -123.01 | 4939 |
| 180 09:52:39 | -149.36 | 4940 |
| 180 11:37:33 | -175.71 | 4941 |
| 180 13:22:27 | 157.95 | 4942 |
| 180 15:07:20 | 131.59 | 4943 |
| 180 16:52:14 | 105.25 | 4944 |
| 180 18:37:08 | 78.90 | 4945 |
| 180 20:22:02 | 52.55 | 4946 |
| 180 22:06:55 | 26.20 | 4947 |
| 180 23:51:49 | -15 | 4948 |

| | | |
|--------------|---------|-------|
| 181 00:42:31 | 124.43 | 30183 |
| 181 02:27:26 | 98.07 | 30184 |
| 181 04:12:21 | 71.72 | 30185 |
| 181 05:57:16 | 45.37 | 30186 |
| 181 07:42:10 | 19.01 | 30187 |
| 181 09:27:05 | -7.34 | 30188 |
| 181 11:12:00 | -33.70 | 30189 |
| 181 12:56:55 | -60.05 | 30190 |
| 181 14:41:50 | -86.40 | 30191 |
| 181 16:26:44 | -112.76 | 30192 |
| 181 18:11:39 | -139.11 | 30193 |
| 181 19:56:34 | -165.47 | 30194 |
| 181 21:41:29 | 168.18 | 30195 |
| 181 23:26:24 | 141.83 | 30196 |

| | | |
|--------------|---------|------|
| 181 01:36:43 | -26.50 | 4949 |
| 181 03:21:36 | -52.85 | 4950 |
| 181 05:06:30 | -79.20 | 4951 |
| 181 06:51:24 | -105.55 | 4952 |
| 181 08:36:18 | -131.90 | 4953 |
| 181 10:21:11 | -158.25 | 4954 |
| 181 12:06:05 | 175.40 | 4955 |
| 181 13:50:59 | 149.05 | 4956 |
| 181 15:35:52 | 122.70 | 4957 |
| 181 17:20:46 | 96.35 | 4958 |
| 181 19:05:40 | 70.01 | 4959 |
| 181 20:50:34 | 43.66 | 4960 |
| 181 22:35:27 | 17.31 | 4961 |

| | | |
|--------------|---------|-------|
| 182 01:11:19 | 115.47 | 30197 |
| 182 02:56:13 | 89.12 | 30198 |
| 182 04:41:08 | 62.76 | 30199 |
| 182 06:26:03 | 36.41 | 30200 |
| 182 08:10:58 | 10.06 | 30201 |
| 182 09:55:53 | -16.30 | 30202 |
| 182 11:40:48 | -42.65 | 30203 |
| 182 13:25:42 | -69.01 | 30204 |
| 182 15:10:37 | -95.36 | 30205 |
| 182 16:55:32 | -121.71 | 30206 |
| 182 18:40:27 | -148.07 | 30207 |
| 182 20:25:22 | -174.42 | 30208 |
| 182 22:10:17 | 159.23 | 30209 |
| 182 23:55:11 | 132.87 | 30210 |

| | | |
|--------------|---------|------|
| 182 00:20:21 | -9.04 | 4962 |
| 182 02:05:15 | -35.39 | 4963 |
| 182 03:50:09 | -61.74 | 4964 |
| 182 05:35:02 | -88.09 | 4965 |
| 182 07:19:56 | -114.44 | 4966 |
| 182 09:04:50 | -140.79 | 4967 |
| 182 10:49:43 | -167.14 | 4968 |
| 182 12:34:37 | 166.51 | 4969 |
| 182 14:19:31 | 140.16 | 4970 |
| 182 16:04:25 | 113.81 | 4971 |
| 182 17:49:18 | 87.46 | 4972 |
| 182 19:34:12 | 61.12 | 4973 |
| 182 21:19:06 | 34.77 | 4974 |
| 182 23:04:00 | 8.42 | 4975 |

| | | |
|--------------|---------|-------|
| 183 01:40:06 | 106.52 | 30211 |
| 183 03:25:01 | 80.16 | 30212 |
| 183 05:09:56 | 53.81 | 30213 |
| 183 06:54:51 | 27.46 | 30214 |
| 183 08:39:45 | 1.10 | 30215 |
| 183 10:24:40 | -25.25 | 30216 |
| 183 12:09:35 | -51.61 | 30217 |
| 183 13:54:30 | -77.96 | 30218 |
| 183 15:39:25 | -104.32 | 30219 |
| 183 17:24:20 | -130.67 | 30220 |
| 183 19:09:14 | -157.02 | 30221 |
| 183 20:54:09 | 176.62 | 30222 |
| 183 22:39:04 | 150.27 | 30223 |

| | | |
|--------------|---------|------|
| 183 00:48:53 | -17.93 | 4976 |
| 183 02:33:47 | -44.28 | 4977 |
| 183 04:18:41 | -70.63 | 4978 |
| 183 06:03:34 | -96.98 | 4979 |
| 183 07:48:28 | -123.33 | 4980 |
| 183 09:33:22 | -149.68 | 4981 |
| 183 11:18:16 | -176.03 | 4982 |
| 183 13:03:09 | 157.62 | 4983 |
| 183 14:48:03 | 131.27 | 4984 |
| 183 16:32:57 | 104.92 | 4985 |
| 183 18:17:51 | 78.58 | 4986 |
| 183 20:02:44 | 52.22 | 4987 |
| 183 21:47:38 | 25.88 | 4988 |
| 183 23:32:32 | -47 | 4989 |

| SATELLITE S2 | | | | | | | SATELLITE S3 | | | | | | | SATELLITE S4 | | | | | | | | | | | | |
|----------------------------|---------|-------|--------------|------------|-------|--------------|----------------------------|------------|--------------|---------|-------|-----|----|----------------------------|----|-----|----|-----|----|----|----|-----|----|--|--|--|
| Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | | | | | | |
| Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | | | | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | day | hr | mn | sc | deg | dg | day | hr | mn | sc | deg | dg | | | |
| 180 00:46:52 | -108.54 | 28566 | 180 00:32:46 | -77.29 | 19628 | 180 00:20:02 | -153.67 | 9063 | 180 00:09:09 | -150.94 | 9077 | | | | | | | | | | | | | | | |
| 180 02:28:53 | -134.05 | 28567 | 180 02:13:59 | -102.59 | 19629 | 180 02:02:07 | -179.19 | 9064 | 180 01:51:14 | -176.46 | 9078 | | | | | | | | | | | | | | | |
| 180 04:10:53 | -159.54 | 28568 | 180 03:55:12 | -127.90 | 19630 | 180 03:44:11 | -155.30 | 9065 | 180 03:33:18 | -158.03 | 9079 | | | | | | | | | | | | | | | |
| 180 05:52:54 | 174.95 | 28569 | 180 05:36:25 | -153.20 | 19631 | 180 05:26:16 | 129.78 | 9066 | 180 05:15:23 | 132.51 | 9080 | | | | | | | | | | | | | | | |
| 180 07:34:54 | 149.46 | 28570 | 180 07:17:39 | -178.52 | 19632 | 180 07:08:21 | 104.26 | 9067 | 180 06:57:28 | 106.99 | 9081 | | | | | | | | | | | | | | | |
| 180 09:16:55 | 123.95 | 28571 | 180 08:58:52 | 156.18 | 19633 | 180 08:50:26 | 78.73 | 9068 | 180 06:45:45 | 81.47 | 9082 | | | | | | | | | | | | | | | |
| 180 10:58:55 | 98.46 | 28572 | 180 10:40:05 | 130.88 | 19634 | 180 10:32:31 | 53.21 | 9069 | 180 05:38:45 | -23.34 | 9072 | | | | | | | | | | | | | | | |
| 180 12:40:56 | 72.95 | 28573 | 180 12:21:18 | 105.58 | 19635 | 180 12:14:35 | 27.70 | 9070 | 180 05:24:50 | -48.86 | 9073 | | | | | | | | | | | | | | | |
| 180 14:22:56 | 47.46 | 28574 | 180 14:02:31 | 80.27 | 19636 | 180 13:56:40 | 2.18 | 9071 | 180 05:10:57 | 4.35 | 9074 | | | | | | | | | | | | | | | |
| 180 16:04:57 | 21.95 | 28575 | 180 15:43:45 | 54.96 | 19637 | 180 15:38:50 | -74.37 | 9075 | 180 04:44:59 | -99.89 | 9075 | | | | | | | | | | | | | | | |
| 180 17:46:57 | -3.54 | 28576 | 180 17:24:58 | 29.65 | 19638 | 180 22:27:04 | -125.41 | 9076 | 180 04:33:53 | 81.47 | 9082 | | | | | | | | | | | | | | | |
| 180 19:28:58 | -29.05 | 28577 | 180 19:06:11 | 4.35 | 19639 | 180 22:16:11 | -122.68 | 9090 | 180 23:58:16 | -148.20 | 9091 | | | | | | | | | | | | | | | |
| 180 21:10:58 | -54.54 | 28578 | 180 20:47:24 | -20.93 | 19640 | 180 23:47:23 | -145.47 | 9105 | | | | | | | | | | | | | | | | | | |
| 180 22:52:59 | -80.05 | 28579 | 180 22:28:37 | -46.25 | 19641 | | | | | | | | | | | | | | | | | | | | | |
| 181 00:34:59 | -105.54 | 28580 | 181 00:09:51 | -71.57 | 19642 | 181 00:09:09 | -150.94 | 9077 | | | | | | | | | | | | | | | | | | |
| 181 02:16:59 | -131.03 | 28581 | 181 01:51:04 | -96.87 | 19643 | 181 01:51:14 | -176.46 | 9078 | | | | | | | | | | | | | | | | | | |
| 181 03:59:00 | -156.54 | 28582 | 181 03:32:17 | -122.18 | 19644 | 181 03:33:18 | 158.03 | 9079 | | | | | | | | | | | | | | | | | | |
| 181 05:41:00 | 177.97 | 28583 | 181 05:13:30 | -147.48 | 19645 | 181 05:15:23 | 132.51 | 9080 | | | | | | | | | | | | | | | | | | |
| 181 07:23:01 | 152.46 | 28584 | 181 06:54:43 | -172.78 | 19646 | 181 06:57:28 | 106.99 | 9081 | | | | | | | | | | | | | | | | | | |
| 181 09:05:01 | 126.97 | 28585 | 181 08:35:57 | 161.90 | 19647 | 181 08:39:33 | 81.47 | 9082 | | | | | | | | | | | | | | | | | | |
| 181 10:47:02 | 101.46 | 28586 | 181 10:17:10 | 136.60 | 19648 | 181 10:21:38 | 55.95 | 9083 | | | | | | | | | | | | | | | | | | |
| 181 12:29:02 | 75.97 | 28587 | 181 11:58:23 | 111.30 | 19649 | 181 12:03:42 | 30.44 | 9084 | | | | | | | | | | | | | | | | | | |
| 181 14:11:03 | 50.46 | 28588 | 181 13:39:36 | 85.99 | 19650 | 181 13:45:47 | 4.92 | 9085 | | | | | | | | | | | | | | | | | | |
| 181 15:53:03 | 24.97 | 28589 | 181 15:20:49 | 60.69 | 19651 | 181 15:27:52 | -20.61 | 9086 | | | | | | | | | | | | | | | | | | |
| 181 17:35:04 | -5.54 | 28590 | 181 17:02:03 | 35.37 | 19652 | 181 17:09:57 | -46.13 | 9087 | | | | | | | | | | | | | | | | | | |
| 181 19:17:04 | -26.03 | 28591 | 181 18:43:16 | 10.07 | 19653 | 181 18:52:01 | -71.64 | 9088 | | | | | | | | | | | | | | | | | | |
| 181 20:59:05 | -51.53 | 28592 | 181 20:24:29 | -15.23 | 19654 | 181 20:34:06 | -97.16 | 9089 | | | | | | | | | | | | | | | | | | |
| 181 22:41:05 | -77.03 | 28593 | 181 22:05:42 | -40.53 | 19655 | 181 22:16:11 | -122.68 | 9090 | | | | | | | | | | | | | | | | | | |
| | | | 181 23:46:55 | -65.84 | 19656 | 181 23:58:16 | -148.20 | 9091 | | | | | | | | | | | | | | | | | | |
| 182 00:23:06 | -102.53 | 28594 | 182 01:28:09 | -91.15 | 19657 | 182 01:40:21 | -173.72 | 9092 | | | | | | | | | | | | | | | | | | |
| 182 02:05:06 | -128.03 | 28595 | 182 03:09:22 | -116.46 | 19658 | 182 03:22:25 | 160.77 | 9093 | | | | | | | | | | | | | | | | | | |
| 182 03:47:07 | -153.53 | 28596 | 182 04:50:35 | -141.76 | 19659 | 182 05:04:30 | 135.25 | 9094 | | | | | | | | | | | | | | | | | | |
| 182 05:29:07 | -179.03 | 28597 | 182 06:31:48 | -167.06 | 19660 | 182 06:46:35 | 109.72 | 9095 | | | | | | | | | | | | | | | | | | |
| 182 07:11:08 | 155.47 | 28598 | 182 08:13:01 | 167.63 | 19661 | 182 08:28:40 | 84.20 | 9096 | | | | | | | | | | | | | | | | | | |
| 182 08:53:08 | 129.97 | 28599 | 182 09:54:15 | 142.32 | 19662 | 182 10:10:45 | 58.68 | 9097 | | | | | | | | | | | | | | | | | | |
| 182 10:35:09 | 104.47 | 28600 | 182 11:35:28 | 117.02 | 19663 | 182 11:52:49 | 33.17 | 9098 | | | | | | | | | | | | | | | | | | |
| 182 12:17:09 | 78.98 | 28601 | 182 13:16:41 | 91.71 | 19664 | 182 13:34:54 | 7.65 | 9099 | | | | | | | | | | | | | | | | | | |
| 182 13:59:10 | 53.47 | 28602 | 182 14:57:54 | 66.41 | 19665 | 182 15:16:59 | -17.87 | 9100 | | | | | | | | | | | | | | | | | | |
| 182 15:41:10 | 27.98 | 28603 | 182 16:39:07 | 41.11 | 19666 | 182 16:59:04 | -43.39 | 9101 | | | | | | | | | | | | | | | | | | |
| 182 17:23:11 | 2.47 | 28604 | 182 18:20:21 | 15.79 | 19667 | 182 18:41:08 | -68.90 | 9102 | | | | | | | | | | | | | | | | | | |
| 182 19:05:11 | -23.02 | 28605 | 182 20:01:34 | -9.51 | 19668 | 182 20:23:13 | -94.42 | 9103 | | | | | | | | | | | | | | | | | | |
| 182 20:47:12 | -48.53 | 28606 | 182 21:42:47 | -34.81 | 19669 | 182 22:05:18 | -119.94 | 9104 | | | | | | | | | | | | | | | | | | |
| 182 22:29:12 | -74.02 | 28607 | 182 23:24:00 | -60.12 | 19670 | 182 23:47:23 | -145.47 | 9105 | | | | | | | | | | | | | | | | | | |
| 183 00:11:13 | -99.53 | 28608 | 183 01:05:13 | -85.42 | 19671 | 183 01:29:28 | -170.99 | 9106 | | | | | | | | | | | | | | | | | | |
| 183 01:53:13 | -125.02 | 28609 | 183 02:46:27 | -110.74 | 19672 | 183 03:11:32 | 163.50 | 9107 | | | | | | | | | | | | | | | | | | |
| 183 03:35:14 | -150.53 | 28610 | 183 04:27:40 | -136.04 | 19673 | 183 04:53:37 | 137.98 | 9108 | | | | | | | | | | | | | | | | | | |
| 183 05:17:14 | -176.02 | 28611 | 183 06:08:53 | -161.34 | 19674 | 183 06:35:42 | 112.46 | 9109 | | | | | | | | | | | | | | | | | | |
| 183 06:59:15 | 158.47 | 28612 | 183 07:50:06 | 173.36 | 19675 | 183 08:17:47 | 86.94 | 9110 | | | | | | | | | | | | | | | | | | |
| 183 08:41:15 | 132.98 | 28613 | 183 09:31:19 | 148.05 | 19676 | 183 09:59:52 | 61.42 | 9111 | | | | | | | | | | | | | | | | | | |
| 183 10:23:16 | 107.47 | 28614 | 183 11:12:33 | 122.74 | 19677 | 183 11:41:56 | 35.91 | 9112 | | | | | | | | | | | | | | | | | | |
| 183 12:05:16 | 81.98 | 28615 | 183 12:53:46 | 97.43 | 19678 | 183 13:24:01 | 10.39 | 9113 | | | | | | | | | | | | | | | | | | |
| 183 13:47:17 | 56.47 | 28616 | 183 14:34:59 | 72.13 | 19679 | 183 15:06:06 | -15.14 | 9114 | | | | | | | | | | | | | | | | | | |
| 183 15:29:17 | 30.98 | 28617 | 183 16:16:12 | 46.83 | 19680 | 183 16:48:11 | -80.66 | 9115 | | | | | | | | | | | | | | | | | | |
| 183 17:11:18 | 5.48 | 28618 | 183 17:57:25 | 21.52 | 19681 | 183 18:30:15 | -66.17 | 9116 | | | | | | | | | | | | | | | | | | |
| 183 18:53:18 | -20.02 | 28619 | 183 19:38:38 | -3.78 | 19682 | 183 20:12:20 | -91.69 | 9117 | | | | | | | | | | | | | | | | | | |
| 183 20:35:19 | -45.52 | 28620 | 183 21:19:52 | -29.09</td | | | | | | | | | | | | | | | | | | | | | | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 184 00:23:59 | 123.91 | 30224 |
| 184 02:08:54 | 97.56 | 30225 |
| 184 03:53:49 | 71.21 | 30226 |
| 184 05:38:43 | 44.85 | 30227 |
| 184 07:23:38 | 18.50 | 30228 |
| 184 09:08:33 | -7.86 | 30229 |
| 184 10:53:28 | -34.21 | 30230 |
| 184 12:38:23 | -60.56 | 30231 |
| 184 14:23:18 | -86.92 | 30232 |
| 184 16:08:12 | -113.27 | 30233 |
| 184 17:53:07 | -139.63 | 30234 |
| 184 19:38:02 | -165.98 | 30235 |
| 184 21:22:57 | 167.67 | 30236 |
| 184 23:07:52 | 141.31 | 30237 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 184 01:17:25 | -26.82 | 4990 |
| 184 03:02:19 | -53.17 | 4991 |
| 184 04:47:13 | -79.52 | 4992 |
| 184 06:32:07 | -105.87 | 4993 |
| 184 08:17:00 | -132.22 | 4994 |
| 184 10:01:54 | -158.57 | 4995 |
| 184 11:46:48 | 175.08 | 4996 |
| 184 13:31:42 | 148.73 | 4997 |
| 184 15:16:35 | 122.38 | 4998 |
| 184 17:01:29 | 96.03 | 4999 |
| 184 18:46:23 | 69.68 | 5000 |
| 184 20:31:16 | 43.33 | 5001 |
| 184 22:16:10 | 16.98 | 5002 |

| | | |
|--------------|---------|-------|
| 185 00:52:46 | 114.96 | 30238 |
| 185 02:37:41 | 88.60 | 30239 |
| 185 04:22:36 | 62.25 | 30240 |
| 185 06:07:31 | 35.90 | 30241 |
| 185 07:52:26 | 9.54 | 30242 |
| 185 09:37:21 | -16.81 | 30243 |
| 185 11:22:15 | -43.17 | 30244 |
| 185 13:07:10 | -69.52 | 30245 |
| 185 14:52:05 | -95.87 | 30246 |
| 185 16:37:00 | -122.23 | 30247 |
| 185 18:21:55 | -148.58 | 30248 |
| 185 20:06:50 | -174.93 | 30249 |
| 185 21:51:44 | 158.71 | 30250 |
| 185 23:36:39 | 132.36 | 30251 |

| | | |
|--------------|---------|------|
| 185 00:01:04 | -9.36 | 5003 |
| 185 01:45:58 | -35.71 | 5004 |
| 185 03:30:51 | -62.06 | 5005 |
| 185 05:15:45 | -88.41 | 5006 |
| 185 07:00:39 | -114.76 | 5007 |
| 185 08:45:33 | -141.11 | 5008 |
| 185 10:30:26 | -167.46 | 5009 |
| 185 12:15:20 | 166.19 | 5010 |
| 185 14:00:14 | 139.84 | 5011 |
| 185 15:45:07 | 113.49 | 5012 |
| 185 17:30:01 | 87.14 | 5013 |
| 185 19:14:55 | 60.79 | 5014 |
| 185 20:59:49 | 34.44 | 5015 |
| 185 22:44:42 | 8.09 | 5016 |

| | | |
|--------------|---------|-------|
| 186 01:21:34 | 106.00 | 30252 |
| 186 03:06:29 | 79.65 | 30253 |
| 186 04:51:24 | 53.30 | 30254 |
| 186 06:36:19 | 26.94 | 30255 |
| 186 08:21:13 | 5.59 | 30256 |
| 186 10:06:08 | -25.77 | 30257 |
| 186 11:51:03 | -52.12 | 30258 |
| 186 13:35:58 | -78.47 | 30259 |
| 186 15:20:53 | -104.83 | 30260 |
| 186 17:05:48 | -131.18 | 30261 |
| 186 18:50:42 | -157.54 | 30262 |
| 186 20:35:37 | 176.11 | 30263 |
| 186 22:20:32 | 149.76 | 30264 |

| | | |
|--------------|---------|------|
| 186 00:29:36 | -18.26 | 5017 |
| 186 02:14:30 | -44.60 | 5018 |
| 186 03:59:24 | -70.95 | 5019 |
| 186 05:44:17 | -97.30 | 5020 |
| 186 07:29:11 | -123.65 | 5021 |
| 186 09:14:05 | -150.00 | 5022 |
| 186 10:58:58 | -176.35 | 5023 |
| 186 12:43:52 | 157.30 | 5024 |
| 186 14:28:46 | 130.95 | 5025 |
| 186 16:13:40 | 104.60 | 5026 |
| 186 17:58:33 | 78.25 | 5027 |
| 186 19:43:27 | 51.90 | 5028 |
| 186 21:28:21 | 25.55 | 5029 |
| 186 23:13:15 | -.80 | 5030 |

| | | |
|--------------|---------|-------|
| 187 00:05:27 | 123.40 | 30265 |
| 187 01:50:22 | 97.05 | 30266 |
| 187 03:35:17 | 70.70 | 30267 |
| 187 05:20:11 | 44.34 | 30268 |
| 187 07:05:06 | 17.99 | 30269 |
| 187 08:50:01 | -8.37 | 30270 |
| 187 10:34:56 | -34.72 | 30271 |
| 187 12:19:51 | -61.07 | 30272 |
| 187 14:04:45 | -87.43 | 30273 |
| 187 15:49:40 | -113.78 | 30274 |
| 187 17:34:35 | -140.14 | 30275 |
| 187 19:19:30 | -166.49 | 30276 |
| 187 21:04:25 | 167.16 | 30277 |
| 187 22:49:20 | 140.80 | 30278 |

| | | |
|--------------|---------|------|
| 187 00:58:08 | -27.15 | 5031 |
| 187 02:43:02 | -53.50 | 5032 |
| 187 04:27:56 | -79.84 | 5033 |
| 187 06:12:49 | -106.20 | 5034 |
| 187 07:57:43 | -132.54 | 5035 |
| 187 09:42:37 | -158.89 | 5036 |
| 187 11:27:31 | 174.76 | 5037 |
| 187 13:12:24 | 148.41 | 5038 |
| 187 14:57:18 | 122.06 | 5039 |
| 187 16:42:12 | 95.71 | 5040 |
| 187 18:27:06 | 69.36 | 5041 |
| 187 20:11:59 | 43.01 | 5042 |
| 187 21:56:53 | 16.66 | 5043 |
| 187 23:41:47 | -9.69 | 5044 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

184 01:41:20 -122.02 28623
 184 03:23:20 -147.51 28624
 184 05:05:21 -173.01 28625
 184 06:47:21 161.49 28626
 184 08:29:22 135.99 28627
 184 10:11:22 110.49 28628
 184 11:53:23 84.99 28629
 184 13:35:23 59.49 28630
 184 15:17:24 33.99 28631
 184 16:59:24 8.49 28632
 184 18:41:25 -17.01 28633
 184 20:23:25 -42.50 28634
 184 22:05:26 -68.01 28635
 184 23:47:26 -93.50 28636

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

184 00:42:18 -79.70 19685
 184 02:23:31 -105.00 19686
 184 04:04:44 -130.31 19687
 184 05:45:58 -155.62 19688
 184 07:27:11 179.08 19689
 184 09:08:24 153.77 19690
 184 10:49:37 128.47 19691
 184 12:30:50 103.17 19692
 184 14:12:04 77.85 19693
 184 15:53:17 52.55 19694
 184 17:34:30 27.24 19695
 184 19:15:43 1.94 19696
 184 20:56:56 -23.36 19697
 184 22:38:10 -48.68 19698

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

184 01:18:35 -168.25 9120
 184 03:00:39 166.24 9121
 184 04:42:44 140.72 9122
 184 06:24:49 115.19 9123
 184 08:06:54 89.67 9124
 184 09:48:59 64.15 9125
 184 11:31:03 38.64 9126
 184 13:13:08 13.12 9127
 184 14:55:13 -12.40 9128
 184 16:37:18 -37.92 9129
 184 18:19:22 -63.43 9130
 184 20:01:27 -88.95 9131
 184 21:43:32 -114.48 9132
 184 23:25:37 -140.00 9133

185 01:29:27 -119.01 28637
 185 03:11:27 -144.50 28638
 185 04:53:28 -170.01 28639
 185 06:35:28 164.50 28640
 185 08:17:29 138.99 28641
 185 09:59:29 113.50 28642
 185 11:41:30 87.99 28643
 185 13:23:30 62.50 28644
 185 15:05:31 36.99 28645
 185 16:47:31 11.50 28646
 185 18:29:32 -14.01 28647
 185 20:11:32 -39.50 28648
 185 21:53:33 -65.01 28649
 185 23:35:33 -90.50 28650

185 00:19:23 -73.98 19699
 185 02:00:36 -99.28 19700
 185 03:41:49 -124.59 19701
 185 05:23:02 -149.89 19702
 185 07:04:16 -175.20 19703
 185 08:45:29 159.49 19704
 185 10:26:42 134.19 19705
 185 12:07:55 108.89 19706
 185 13:49:08 83.58 19707
 185 15:30:22 58.27 19708
 185 17:11:35 32.96 19709
 185 18:52:48 7.66 19710
 185 20:34:01 -17.64 19711
 185 22:15:14 -42.94 19712
 185 23:56:28 -68.26 19713

185 01:07:42 -165.52 9134
 185 02:49:46 168.97 9135
 185 04:31:51 143.45 9136
 185 06:13:56 117.93 9137
 185 07:56:01 92.41 9138
 185 09:38:06 66.88 9139
 185 11:20:10 41.38 9140
 185 13:02:15 15.85 9141
 185 14:44:20 -9.67 9142
 185 16:26:25 -35.19 9143
 185 18:08:29 -60.70 9144
 185 19:50:34 -86.22 9145
 185 21:32:39 -111.74 9146
 185 23:14:44 -137.26 9147

186 01:17:34 -116.00 28651
 186 02:59:34 -141.50 28652
 186 04:41:35 -167.00 28653
 186 06:23:35 167.50 28654
 186 08:05:36 142.00 28655
 186 09:47:36 116.50 28656
 186 11:29:37 91.00 28657
 186 13:11:37 65.51 28658
 186 14:53:38 40.00 28659
 186 16:35:38 14.51 28660
 186 18:17:39 -11.00 28661
 186 19:59:39 -36.49 28662
 186 21:41:40 -62.00 28663
 186 23:23:40 -87.49 28664

186 01:37:41 -93.56 19714
 186 03:18:54 -118.87 19715
 186 05:00:07 -144.17 19716
 186 06:41:20 -169.47 19717
 186 08:22:34 165.21 19718
 186 10:03:47 139.91 19719
 186 11:45:00 114.61 19720
 186 13:26:13 89.30 19721
 186 15:07:26 64.00 19722
 186 16:48:40 38.68 19723
 186 18:29:53 13.38 19724
 186 20:11:06 -11.92 19725
 186 21:52:19 -37.22 19726
 186 23:33:32 -62.53 19727

186 00:56:49 -162.79 9148
 186 02:38:53 171.71 9149
 186 04:20:58 146.18 9150
 186 06:03:03 120.66 9151
 186 07:45:08 95.14 9152
 186 09:27:13 69.62 9153
 186 11:09:17 44.11 9154
 186 12:51:22 18.59 9155
 186 14:33:27 -6.93 9156
 186 16:15:32 -32.46 9157
 186 17:57:37 -57.98 9158
 186 19:39:41 -83.49 9159
 186 21:21:46 -109.01 9160
 186 23:03:51 -134.53 9161

187 01:05:41 -113.00 28665
 187 02:47:41 -138.49 28666
 187 04:29:42 -164.00 28667
 187 06:11:42 170.51 28668
 187 07:53:42 145.02 28669
 187 09:35:43 119.51 28670
 187 11:17:43 94.02 28671
 187 12:59:44 68.51 28672
 187 14:41:44 43.02 28673
 187 16:23:45 17.51 28674
 187 18:05:45 -7.98 28675
 187 19:47:46 -33.49 28676
 187 21:29:46 -58.98 28677
 187 23:11:47 -84.49 28678

187 01:14:46 -87.84 19728
 187 02:55:59 -113.15 19729
 187 04:37:12 -138.45 19730
 187 06:18:25 -163.75 19731
 187 07:59:38 170.95 19732
 187 09:40:52 145.63 19733
 187 11:22:05 120.33 19734
 187 13:03:18 95.02 19735
 187 14:44:31 69.72 19736
 187 16:25:44 44.42 19737
 187 18:06:58 19.10 19738
 187 19:48:11 -6.20 19739
 187 21:29:24 -31.50 19740
 187 23:10:37 -56.81 19741

187 00:45:56 -160.05 9162
 187 02:28:00 174.44 9163
 187 04:10:05 148.92 9164
 187 05:52:10 123.40 9165
 187 07:34:15 97.87 9166
 187 09:16:20 72.35 9167
 187 10:58:24 46.84 9168
 187 12:40:29 21.32 9169
 187 14:22:34 -4.20 9170
 187 16:04:39 -29.72 9171
 187 17:46:44 -55.24 9172
 187 19:28:48 -80.75 9173
 187 21:10:53 -106.27 9174
 187 22:52:58 -131.80 9175

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 188 00:34:14 | 114.45 | 30279 |
| 188 02:19:09 | 88.09 | 30280 |
| 188 04:04:04 | 61.74 | 30281 |
| 188 05:48:59 | 35.39 | 30282 |
| 188 07:33:54 | 9.03 | 30283 |
| 188 09:18:49 | -17.32 | 30284 |
| 188 11:03:43 | -43.68 | 30285 |
| 188 12:48:38 | -70.03 | 30286 |
| 188 14:33:33 | -96.38 | 30287 |
| 188 16:18:29 | -122.74 | 30288 |
| 188 18:03:23 | -149.09 | 30289 |
| 188 19:48:18 | -175.45 | 30290 |
| 188 21:33:12 | 158.20 | 30291 |
| 188 23:18:07 | 131.85 | 30292 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 188 01:26:40 | -36.04 | 5045 |
| 188 03:11:34 | -62.39 | 5046 |
| 188 04:56:28 | -88.74 | 5047 |
| 188 06:41:22 | -115.08 | 5048 |
| 188 08:26:15 | -141.44 | 5049 |
| 188 10:11:09 | -167.78 | 5050 |
| 188 11:56:03 | 165.87 | 5051 |
| 188 13:40:57 | 139.52 | 5052 |
| 188 15:25:50 | 113.17 | 5053 |
| 188 17:10:44 | 86.82 | 5054 |
| 188 18:55:38 | 60.47 | 5055 |
| 188 20:40:31 | 34.12 | 5056 |
| 188 22:25:25 | 7.77 | 5057 |

| | | |
|--------------|---------|-------|
| 189 01:03:02 | 105.49 | 30293 |
| 189 02:47:57 | 79.14 | 30294 |
| 189 04:32:52 | 52.78 | 30295 |
| 189 06:17:47 | 26.43 | 30296 |
| 189 08:02:41 | .07 | 30297 |
| 189 09:47:36 | -26.28 | 30298 |
| 189 11:32:31 | -52.63 | 30299 |
| 189 13:17:26 | -78.99 | 30300 |
| 189 15:02:21 | -105.34 | 30301 |
| 189 16:47:16 | -131.69 | 30302 |
| 189 18:32:10 | -158.05 | 30303 |
| 189 20:17:05 | 175.60 | 30304 |
| 189 22:02:00 | 149.24 | 30305 |
| 189 23:46:55 | 122.89 | 30306 |

| | | |
|--------------|---------|------|
| 189 00:10:19 | -18.58 | 5058 |
| 189 01:55:13 | -44.93 | 5059 |
| 189 03:40:06 | -71.28 | 5060 |
| 189 05:25:00 | -97.63 | 5061 |
| 189 07:09:54 | -123.98 | 5062 |
| 189 08:54:48 | -150.32 | 5063 |
| 189 10:39:41 | -176.68 | 5064 |
| 189 12:24:35 | 156.98 | 5065 |
| 189 14:09:29 | 130.63 | 5066 |
| 189 15:54:22 | 104.28 | 5067 |
| 189 17:39:16 | 77.93 | 5068 |
| 189 19:24:10 | 51.58 | 5069 |
| 189 21:09:04 | 25.23 | 5070 |
| 189 22:53:57 | -1.12 | 5071 |

| | | |
|--------------|---------|-------|
| 190 01:31:50 | 96.54 | 30307 |
| 190 03:16:45 | 70.18 | 30308 |
| 190 05:01:39 | 43.83 | 30309 |
| 190 06:46:34 | 17.47 | 30310 |
| 190 08:31:29 | -8.88 | 30311 |
| 190 10:16:24 | -35.23 | 30312 |
| 190 12:01:19 | -61.59 | 30313 |
| 190 13:46:14 | -87.94 | 30314 |
| 190 15:31:08 | -114.30 | 30315 |
| 190 17:16:03 | -140.65 | 30316 |
| 190 19:00:58 | -167.00 | 30317 |
| 190 20:45:53 | 166.64 | 30318 |
| 190 22:30:48 | 140.29 | 30319 |

| | | |
|--------------|---------|------|
| 190 00:38:51 | -27.47 | 5072 |
| 190 02:23:45 | -53.82 | 5073 |
| 190 04:08:39 | -80.17 | 5074 |
| 190 05:53:32 | -106.52 | 5075 |
| 190 07:38:26 | -132.87 | 5076 |
| 190 09:23:20 | -159.21 | 5077 |
| 190 11:08:13 | 174.43 | 5078 |
| 190 12:53:07 | 148.09 | 5079 |
| 190 14:38:01 | 121.74 | 5080 |
| 190 16:22:55 | 95.39 | 5081 |
| 190 18:07:48 | 69.04 | 5082 |
| 190 19:52:42 | 42.69 | 5083 |
| 190 21:37:36 | 16.34 | 5084 |
| 190 23:22:30 | -10.01 | 5085 |

| | | |
|--------------|---------|-------|
| 191 00:15:43 | 113.94 | 30320 |
| 191 02:00:37 | 87.58 | 30321 |
| 191 03:45:32 | 61.23 | 30322 |
| 191 05:30:27 | 34.87 | 30323 |
| 191 07:15:22 | 8.52 | 30324 |
| 191 09:00:17 | -17.83 | 30325 |
| 191 10:45:12 | -44.19 | 30326 |
| 191 12:30:06 | -70.54 | 30327 |
| 191 14:15:01 | -96.90 | 30328 |
| 191 15:59:56 | -123.25 | 30329 |
| 191 17:44:51 | -149.60 | 30330 |
| 191 19:29:46 | -175.96 | 30331 |
| 191 21:14:41 | 157.69 | 30332 |
| 191 22:59:35 | 131.33 | 30333 |

| | | |
|--------------|---------|------|
| 191 01:07:23 | -36.36 | 5086 |
| 191 02:52:17 | -62.71 | 5087 |
| 191 04:37:11 | -89.06 | 5088 |
| 191 06:22:04 | -115.41 | 5089 |
| 191 08:06:58 | -141.76 | 5090 |
| 191 09:51:52 | -168.11 | 5091 |
| 191 11:36:46 | 165.55 | 5092 |
| 191 13:21:39 | 139.19 | 5093 |
| 191 15:06:33 | 112.85 | 5094 |
| 191 16:51:27 | 86.50 | 5095 |
| 191 18:36:21 | 60.15 | 5096 |
| 191 20:21:14 | 33.80 | 5097 |
| 191 22:06:08 | 7.45 | 5098 |
| 191 23:51:02 | -18.90 | 5099 |

| SATELLITE S2 | | | | | | | SATELLITE S3 | | | | | | | SATELLITE S4 | | | | | | | | | | | | |
|----------------------------|---------|-------|--------------|---------|-------|--------------|----------------------------|-------|--------------|---------|-------|--------------|---------|----------------------------|--------------|---------|-------|--------------|---------|-------|--------------|---------|-------|--------------|--------|------|
| Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | | | | | | |
| Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | | | | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | | | | | | |
| day hr mn sc | deg dg | | day hr mn sc | deg dg | | day hr mn sc | deg dg | | day hr mn sc | deg dg | | day hr mn sc | deg dg | | day hr mn sc | deg dg | | day hr mn sc | deg dg | | | | | | | |
| 188 00:53:47 | -109.98 | 28679 | 188 00:51:50 | -82.11 | 19742 | 188 00:35:03 | -157.32 | 9176 | 188 02:35:48 | -135.49 | 28680 | 188 02:33:04 | -107.43 | 19743 | 188 02:17:07 | 177.17 | 9177 | 188 04:17:48 | -160.98 | 28681 | 188 04:14:17 | -132.73 | 19744 | 188 03:59:12 | 151.65 | 9178 |
| 188 05:59:49 | 173.51 | 28682 | 188 05:55:30 | -158.03 | 19745 | 188 05:41:17 | 126.13 | 9179 | 188 07:41:49 | 148.02 | 28683 | 188 07:36:43 | 176.67 | 19746 | 188 07:23:22 | 100.61 | 9180 | 188 09:23:50 | 122.52 | 28684 | 188 09:17:56 | 151.36 | 19747 | 188 09:05:27 | 75.09 | 9181 |
| 188 11:05:50 | 97.02 | 28685 | 188 10:59:10 | 126.05 | 19748 | 188 10:47:31 | 49.58 | 9182 | 188 12:47:51 | 71.52 | 28686 | 188 12:40:23 | 100.74 | 19749 | 188 12:29:36 | 24.06 | 9183 | 188 14:29:51 | 46.02 | 28687 | 188 14:21:36 | 75.44 | 19750 | 188 14:11:41 | -1.47 | 9184 |
| 188 16:11:52 | 20.52 | 28688 | 188 16:02:49 | 50.14 | 19751 | 188 15:53:46 | -26.99 | 9185 | 188 17:53:52 | -4.98 | 28689 | 188 17:44:02 | 24.84 | 19752 | 188 17:35:51 | -52.51 | 9186 | 188 19:35:53 | -30.48 | 28690 | 188 19:25:16 | -4.48 | 19753 | 188 19:17:55 | -78.02 | 9187 |
| 188 21:17:53 | -55.97 | 28691 | 188 21:06:29 | -25.78 | 19754 | 188 21:00:00 | -103.54 | 9188 | 188 22:59:54 | -81.48 | 28692 | 188 22:47:42 | -51.09 | 19755 | 188 22:42:05 | -129.06 | 9189 | | | | | | | | | |
| 189 00:41:54 | -106.97 | 28693 | 189 00:28:55 | -76.39 | 19756 | 189 00:24:10 | -154.58 | 9190 | 189 02:23:55 | -132.48 | 28694 | 189 02:10:08 | -101.69 | 19757 | 189 02:06:14 | 179.91 | 9191 | 189 04:05:55 | -157.97 | 28695 | 189 03:51:22 | -127.01 | 19758 | 189 03:48:19 | 154.39 | 9192 |
| 189 05:47:56 | 176.52 | 28696 | 189 05:32:35 | -152.31 | 19759 | 189 05:30:24 | 128.87 | 9193 | 189 07:29:56 | 151.03 | 28697 | 189 07:13:48 | -177.61 | 19760 | 189 07:12:29 | 103.34 | 9194 | 189 09:11:57 | 125.52 | 28698 | 189 08:55:01 | 157.08 | 19761 | 189 08:54:34 | 77.82 | 9195 |
| 189 10:53:57 | 100.03 | 28699 | 189 10:36:14 | 131.78 | 19762 | 189 10:36:38 | 52.31 | 9196 | 189 12:35:58 | 74.52 | 28700 | 189 12:17:28 | 106.46 | 19763 | 189 12:18:43 | 26.79 | 9197 | 189 14:17:58 | 49.03 | 28701 | 189 13:58:41 | 81.16 | 19764 | 189 14:00:48 | 1.27 | 9198 |
| 189 15:59:59 | 23.52 | 28702 | 189 15:39:54 | 55.86 | 19765 | 189 15:42:53 | -24.25 | 9199 | 189 17:41:59 | -1.97 | 28703 | 189 17:21:02 | 30.56 | 19766 | 189 17:24:58 | -69.77 | 9200 | 189 19:24:00 | -27.48 | 28704 | 189 19:02:20 | 5.25 | 19767 | 189 19:07:02 | -75.28 | 9201 |
| 189 21:06:00 | -52.97 | 28705 | 189 20:43:34 | -20.06 | 19768 | 189 20:49:07 | -100.80 | 9202 | 189 22:48:01 | -78.48 | 28706 | 189 22:24:47 | -45.37 | 19769 | 189 22:31:12 | -126.33 | 9203 | | | | | | | | | |
| 190 00:30:01 | -103.97 | 28707 | 190 00:06:00 | -70.67 | 19770 | 190 00:13:17 | -151.85 | 9204 | 190 02:12:02 | -129.47 | 28708 | 190 01:47:13 | -95.97 | 19771 | 190 01:55:22 | -177.37 | 9205 | 190 03:54:02 | -154.97 | 28709 | 190 03:28:26 | -121.27 | 19772 | 190 03:37:26 | 157.12 | 9206 |
| 190 05:36:03 | 179.53 | 28710 | 190 05:09:40 | -146.59 | 19773 | 190 05:19:31 | 131.60 | 9207 | 190 07:18:03 | 154.03 | 28711 | 190 06:50:53 | -171.89 | 19774 | 190 07:01:36 | 106.98 | 9208 | 190 09:00:04 | 128.53 | 28712 | 190 08:32:06 | 162.80 | 19775 | 190 08:43:41 | 80.56 | 9209 |
| 190 10:42:04 | 103.03 | 28713 | 190 10:13:19 | 137.50 | 19776 | 190 10:25:45 | 55.05 | 9210 | 190 12:24:05 | 77.53 | 28714 | 190 11:54:32 | 112.20 | 19777 | 190 12:07:50 | 29.53 | 9211 | 190 14:06:05 | 52.03 | 28715 | 190 13:35:46 | 86.88 | 19778 | 190 13:49:55 | 4.00 | 9212 |
| 190 15:48:06 | 26.53 | 28716 | 190 15:16:59 | 61.58 | 19779 | 190 15:32:00 | -21.52 | 9213 | 190 17:30:06 | 1.04 | 28717 | 190 16:58:12 | 36.28 | 19780 | 190 17:14:05 | -47.04 | 9214 | 190 19:12:07 | -24.47 | 28718 | 190 18:39:25 | 10.97 | 19781 | 190 18:56:09 | -72.55 | 9215 |
| 190 20:54:07 | -49.96 | 28719 | 190 20:20:38 | -14.33 | 19782 | 190 20:38:14 | -98.07 | 9216 | 190 22:36:08 | -75.47 | 28720 | 190 22:01:52 | -39.65 | 19783 | 190 22:20:19 | -123.59 | 9217 | | | | | | | | | |
| 190 23:43:05 | -64.95 | 19784 | | | | | | | | | | | | | | | | | | | | | | | | |
| 191 00:18:08 | -100.96 | 28721 | 191 01:24:18 | -90.25 | 19785 | 191 00:02:24 | -149.11 | 9218 | 191 02:00:08 | -126.46 | 28722 | 191 03:05:31 | -115.55 | 19786 | 191 01:44:29 | -174.64 | 9219 | 191 03:42:09 | -151.96 | 28723 | 191 04:46:44 | -140.86 | 19787 | 191 03:26:33 | 159.86 | 9220 |
| 191 05:24:09 | -177.45 | 28724 | 191 06:27:58 | -166.17 | 19788 | 191 05:08:38 | 134.33 | 9221 | 191 07:06:10 | 157.04 | 28725 | 191 08:09:11 | 168.52 | 19789 | 191 06:50:43 | 108.81 | 9222 | 191 08:48:10 | 131.55 | 28726 | 191 09:50:24 | 143.22 | 19790 | 191 08:32:48 | 83.29 | 9223 |
| 191 10:30:11 | 106.04 | 28727 | 191 11:31:37 | 117.92 | 19791 | 191 10:14:52 | 57.78 | 9224 | 191 12:12:11 | 80.55 | 28728 | 191 13:12:50 | 92.61 | 19792 | 191 11:56:57 | 32.26 | 9225 | 191 13:54:12 | 55.04 | 28729 | 191 14:54:04 | 67.30 | 19793 | 191 13:39:02 | 6.74 | 9226 |
| 191 15:36:12 | 29.55 | 28730 | 191 16:35:17 | 42.00 | 19794 | 191 15:21:07 | -18.78 | 9227 | 191 17:18:13 | 4.04 | 28731 | 191 18:16:30 | 16.69 | 19795 | 191 17:03:12 | -44.31 | 9228 | 191 19:00:13 | -21.45 | 28732 | 191 19:57:43 | -8.61 | 19796 | 191 18:45:16 | -69.81 | 9229 |
| 191 20:42:14 | -46.96 | 28733 | 191 21:38:56 | -33.91 | 19797 | 191 20:27:21 | -93.34 | 9230 | 191 22:24:14 | -72.45 | 28734 | 191 23:20:10 | -59.23 | 19798 | 191 22:09:26 | -120.86 | 9231 | | | | | | | | | |
| 191 23:51:31 | -146.38 | 19798 | | | | | | | | | | | | | | | | | | | | | | | | |

West longitude is negative (-)

SATELLITE C3**Ascending Node Predictions****Predicting for 186 days**

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 192 00:44:30 | 104.98 | 30334 |
| 192 02:29:25 | 78.62 | 30335 |
| 192 04:14:20 | 52.27 | 30336 |
| 192 05:59:15 | 25.92 | 30337 |
| 192 07:44:10 | -44 | 30338 |
| 192 09:29:04 | -26.79 | 30339 |
| 192 11:13:59 | -53.15 | 30340 |
| 192 12:58:54 | -79.50 | 30341 |
| 192 14:43:49 | -105.85 | 30342 |
| 192 16:28:44 | -132.21 | 30343 |
| 192 18:13:39 | -158.56 | 30344 |
| 192 19:58:33 | 175.08 | 30345 |
| 192 21:43:28 | 148.73 | 30346 |
| 192 23:28:23 | 122.38 | 30347 |

SATELLITE C4**Ascending Node Predictions****Predicting for 184 days**

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 192 01:35:56 | -45.25 | 5100 |
| 192 03:20:49 | -71.60 | 5101 |
| 192 05:05:43 | -97.95 | 5102 |
| 192 06:50:37 | -124.30 | 5103 |
| 192 08:35:30 | -150.65 | 5104 |
| 192 10:20:24 | -177.00 | 5105 |
| 192 12:05:18 | 156.65 | 5106 |
| 192 13:50:12 | 130.31 | 5107 |
| 192 15:35:05 | 103.95 | 5108 |
| 192 17:19:59 | 77.61 | 5109 |
| 192 19:04:53 | 51.26 | 5110 |
| 192 20:49:47 | 24.91 | 5111 |
| 192 22:34:40 | -1.44 | 5112 |

| | | |
|--------------|---------|-------|
| 193 01:13:18 | 96.02 | 30348 |
| 193 02:58:13 | 69.67 | 30349 |
| 193 04:43:08 | 43.32 | 30350 |
| 193 06:28:02 | 16.96 | 30351 |
| 193 08:12:57 | -9.39 | 30352 |
| 193 09:57:52 | -35.75 | 30353 |
| 193 11:42:47 | -62.10 | 30354 |
| 193 13:27:42 | -88.45 | 30355 |
| 193 15:12:37 | -114.81 | 30356 |
| 193 16:57:31 | -141.16 | 30357 |
| 193 18:42:26 | -167.52 | 30358 |
| 193 20:27:21 | 166.13 | 30359 |
| 193 22:12:16 | 139.78 | 30360 |
| 193 23:57:11 | 113.42 | 30361 |

| | | |
|--------------|---------|------|
| 193 00:19:34 | -27.79 | 5113 |
| 193 02:04:28 | -54.14 | 5114 |
| 193 03:49:21 | -80.49 | 5115 |
| 193 05:34:15 | -106.84 | 5116 |
| 193 07:19:09 | -133.19 | 5117 |
| 193 09:04:03 | -159.54 | 5118 |
| 193 10:48:56 | 174.11 | 5119 |
| 193 12:33:50 | 147.76 | 5120 |
| 193 14:18:44 | 121.41 | 5121 |
| 193 16:03:38 | 95.07 | 5122 |
| 193 17:48:31 | 68.71 | 5123 |
| 193 19:33:25 | 42.37 | 5124 |
| 193 21:18:19 | 16.02 | 5125 |
| 193 23:03:12 | -10.33 | 5126 |

| | | |
|--------------|---------|-------|
| 194 01:42:06 | 87.07 | 30362 |
| 194 03:27:00 | 60.71 | 30363 |
| 194 05:11:55 | 34.36 | 30364 |
| 194 06:56:50 | 8.01 | 30365 |
| 194 08:41:45 | -18.35 | 30366 |
| 194 10:26:40 | -44.70 | 30367 |
| 194 12:11:35 | -71.05 | 30368 |
| 194 13:56:29 | -97.41 | 30369 |
| 194 15:41:24 | -123.76 | 30370 |
| 194 17:26:19 | -150.12 | 30371 |
| 194 19:11:14 | -176.47 | 30372 |
| 194 20:56:09 | 157.17 | 30373 |
| 194 22:41:04 | 130.82 | 30374 |

| | | |
|--------------|---------|------|
| 194 00:48:06 | -36.68 | 5127 |
| 194 02:33:00 | -63.03 | 5128 |
| 194 04:17:54 | -89.38 | 5129 |
| 194 06:02:47 | -115.73 | 5130 |
| 194 07:47:41 | -142.08 | 5131 |
| 194 09:32:35 | -168.43 | 5132 |
| 194 11:17:29 | 165.22 | 5133 |
| 194 13:02:22 | 138.87 | 5134 |
| 194 14:47:16 | 112.52 | 5135 |
| 194 16:32:10 | 86.17 | 5136 |
| 194 18:17:04 | 59.83 | 5137 |
| 194 20:01:57 | 33.47 | 5138 |
| 194 21:46:51 | 7.13 | 5139 |
| 194 23:31:45 | -19.22 | 5140 |

| | | |
|--------------|---------|-------|
| 195 00:29:58 | 104.46 | 30375 |
| 195 02:10:53 | 78.11 | 30376 |
| 195 03:55:48 | 51.76 | 30377 |
| 195 05:40:43 | 25.40 | 30378 |
| 195 07:25:38 | -95 | 30379 |
| 195 09:10:33 | -27.30 | 30380 |
| 195 10:55:28 | -53.66 | 30381 |
| 195 12:40:22 | -80.01 | 30382 |
| 195 14:25:17 | -106.37 | 30383 |
| 195 16:10:12 | -132.72 | 30384 |
| 195 17:55:07 | -159.07 | 30385 |
| 195 19:40:02 | 174.57 | 30386 |
| 195 21:24:57 | 148.22 | 30387 |
| 195 23:09:51 | 121.86 | 30388 |

| | | |
|--------------|---------|------|
| 195 01:16:38 | -45.57 | 5141 |
| 195 03:01:32 | -71.92 | 5142 |
| 195 04:46:26 | -98.27 | 5143 |
| 195 06:31:20 | -124.62 | 5144 |
| 195 08:16:13 | -150.97 | 5145 |
| 195 10:01:07 | -177.32 | 5146 |
| 195 11:46:01 | 156.33 | 5147 |
| 195 13:30:55 | 129.98 | 5148 |
| 195 15:15:48 | 103.63 | 5149 |
| 195 17:00:42 | 77.28 | 5150 |
| 195 18:45:36 | 50.93 | 5151 |
| 195 20:30:29 | 24.58 | 5152 |
| 195 22:15:23 | -1.77 | 5153 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | | | | | | | | |
|----------------------------|---------|-------|--------------|----------------------------|-------|--------------|---------|----------------------------|--------------|--------|--------------|--------|----|----|----|-----|----|--|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | | | | | | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | | | | | | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | day hr mn sc | deg dg | day hr mn sc | deg dg | | | | | | |
| day | hr | mn | sc | deg | dg | day | hr | mn | sc | deg | dg | day | hr | mn | sc | deg | dg | |
| 192 00:06:15 | -97.96 | 28735 | 192 01:01:23 | -84.53 | 19799 | 192 01:33:36 | -171.90 | 9233 | | | | | | | | | | |
| 192 01:48:15 | -123.45 | 28736 | 192 02:42:36 | -109.83 | 19800 | 192 03:15:40 | 162.59 | 9234 | | | | | | | | | | |
| 192 03:30:16 | -148.96 | 28737 | 192 04:23:49 | -135.14 | 19801 | 192 04:57:45 | 137.07 | 9235 | | | | | | | | | | |
| 192 05:12:16 | -174.45 | 28738 | 192 06:05:02 | -160.44 | 19802 | 192 06:39:50 | 111.55 | 9236 | | | | | | | | | | |
| 192 06:54:17 | 160.04 | 28739 | 192 07:46:16 | 174.24 | 19803 | 192 08:21:55 | 86.02 | 9237 | | | | | | | | | | |
| 192 08:36:17 | 134.55 | 28740 | 192 09:27:29 | 148.94 | 19804 | 192 10:04:00 | 60.50 | 9238 | | | | | | | | | | |
| 192 10:18:18 | 109.05 | 28741 | 192 11:08:42 | 123.64 | 19805 | 192 11:46:04 | 34.99 | 9239 | | | | | | | | | | |
| 192 12:00:18 | 83.55 | 28742 | 192 12:49:55 | 98.34 | 19806 | 192 13:28:09 | 9.47 | 9240 | | | | | | | | | | |
| 192 13:42:19 | 58.05 | 28743 | 192 14:31:08 | 73.03 | 19807 | 192 15:10:14 | -16.05 | 9241 | | | | | | | | | | |
| 192 15:24:19 | 32.55 | 28744 | 192 16:12:22 | 47.72 | 19808 | 192 16:52:19 | -41.57 | 9242 | | | | | | | | | | |
| 192 17:06:20 | 7.05 | 28745 | 192 17:53:35 | 22.41 | 19809 | 192 18:34:23 | -67.08 | 9243 | | | | | | | | | | |
| 192 18:48:20 | -18.45 | 28746 | 192 19:34:48 | -2.89 | 19810 | 192 20:16:28 | -92.60 | 9244 | | | | | | | | | | |
| 192 20:30:21 | -43.95 | 28747 | 192 21:16:01 | -28.19 | 19811 | 192 21:58:33 | -118.12 | 9245 | | | | | | | | | | |
| 192 22:12:21 | -69.44 | 28748 | 192 22:57:14 | -53.50 | 19812 | 192 23:40:38 | -143.64 | 9246 | | | | | | | | | | |
| 192 23:54:22 | -94.95 | 28749 | | | | | | | | | | | | | | | | |
| 193 01:36:22 | -120.44 | 28750 | 193 00:38:28 | -78.81 | 19813 | 193 01:22:43 | -169.17 | 9247 | | | | | | | | | | |
| 193 03:18:23 | -145.95 | 28751 | 193 02:19:41 | -104.11 | 19814 | 193 03:04:47 | 165.32 | 9248 | | | | | | | | | | |
| 193 05:00:23 | -171.44 | 28752 | 193 04:00:54 | -129.92 | 19815 | 193 04:46:52 | 139.89 | 9249 | | | | | | | | | | |
| 193 06:42:24 | 163.05 | 28753 | 193 05:42:07 | -154.72 | 19816 | 193 06:28:57 | 114.28 | 9250 | | | | | | | | | | |
| 193 08:24:24 | 137.56 | 28754 | 193 07:23:20 | 179.98 | 19817 | 193 08:11:02 | 88.76 | 9251 | | | | | | | | | | |
| 193 10:06:25 | 112.05 | 28755 | 193 09:04:34 | 154.66 | 19818 | 193 09:53:07 | 63.24 | 9252 | | | | | | | | | | |
| 193 11:48:25 | 86.56 | 28756 | 193 10:45:47 | 129.36 | 19819 | 193 11:35:11 | 37.73 | 9253 | | | | | | | | | | |
| 193 13:30:26 | 61.05 | 28757 | 193 12:27:00 | 104.06 | 19820 | 193 13:17:16 | 12.21 | 9254 | | | | | | | | | | |
| 193 15:12:26 | 35.56 | 28758 | 193 14:08:13 | 78.75 | 19821 | 193 14:59:21 | -13.31 | 9255 | | | | | | | | | | |
| 193 16:54:27 | 10.05 | 28759 | 193 15:49:26 | 53.45 | 19822 | 193 16:41:26 | -38.84 | 9256 | | | | | | | | | | |
| 193 18:36:27 | -15.44 | 28760 | 193 17:30:40 | 28.13 | 19823 | 193 18:23:31 | -64.36 | 9257 | | | | | | | | | | |
| 193 20:18:28 | -40.95 | 28761 | 193 19:11:53 | 2.83 | 19824 | 193 20:05:35 | -89.87 | 9258 | | | | | | | | | | |
| 193 22:00:28 | -66.44 | 28762 | 193 20:53:06 | -22.47 | 19825 | 193 21:47:40 | -115.39 | 9259 | | | | | | | | | | |
| 193 23:42:29 | -91.94 | 28763 | 193 22:34:19 | -47.77 | 19826 | 193 23:29:45 | -140.91 | 9260 | | | | | | | | | | |
| 194 01:24:29 | -117.44 | 28764 | 194 00:15:32 | -73.08 | 19827 | 194 01:11:50 | -166.43 | 9261 | | | | | | | | | | |
| 194 03:06:30 | -142.94 | 28765 | 194 01:56:46 | -98.39 | 19828 | 194 02:53:54 | 168.06 | 9262 | | | | | | | | | | |
| 194 04:48:30 | -168.44 | 28766 | 194 03:37:59 | -123.70 | 19829 | 194 04:35:59 | 142.54 | 9263 | | | | | | | | | | |
| 194 06:30:31 | 166.06 | 28767 | 194 05:19:12 | -149.00 | 19830 | 194 06:18:04 | 117.02 | 9264 | | | | | | | | | | |
| 194 08:12:31 | 140.56 | 28768 | 194 07:00:25 | -174.30 | 19831 | 194 08:00:09 | 91.49 | 9265 | | | | | | | | | | |
| 194 09:54:32 | 115.06 | 28769 | 194 08:41:38 | 160.39 | 19832 | 194 09:42:14 | 65.97 | 9266 | | | | | | | | | | |
| 194 11:36:32 | 89.56 | 28770 | 194 10:22:52 | 135.08 | 19833 | 194 11:24:18 | 40.46 | 9267 | | | | | | | | | | |
| 194 13:18:33 | 64.06 | 28771 | 194 12:04:05 | 109.78 | 19834 | 194 13:06:23 | 14.94 | 9268 | | | | | | | | | | |
| 194 15:00:33 | 38.57 | 28772 | 194 13:45:18 | 84.47 | 19835 | 194 14:48:28 | -10.58 | 9269 | | | | | | | | | | |
| 194 16:42:34 | 13.06 | 28773 | 194 15:26:31 | 59.17 | 19836 | 194 16:30:33 | -36.10 | 9270 | | | | | | | | | | |
| 194 18:24:34 | -12.43 | 28774 | 194 17:07:44 | 33.87 | 19837 | 194 18:12:38 | -61.62 | 9271 | | | | | | | | | | |
| 194 20:06:35 | -37.94 | 28775 | 194 18:48:58 | 8.55 | 19838 | 194 19:54:42 | -87.13 | 9272 | | | | | | | | | | |
| 194 21:48:35 | -63.43 | 28776 | 194 20:30:11 | -16.75 | 19839 | 194 21:36:47 | -112.65 | 9273 | | | | | | | | | | |
| 194 23:30:36 | -88.94 | 28777 | 194 22:11:24 | -42.05 | 19840 | 194 23:18:52 | -138.18 | 9274 | | | | | | | | | | |
| 194 23:52:37 | -67.36 | 19841 | | | | | | | | | | | | | | | | |
| 195 01:12:36 | -114.43 | 28778 | 195 01:33:50 | -92.66 | 19842 | 195 01:00:57 | -163.70 | 9275 | | | | | | | | | | |
| 195 02:54:37 | -139.94 | 28779 | 195 03:15:04 | -117.98 | 19843 | 195 02:43:01 | 170.79 | 9276 | | | | | | | | | | |
| 195 04:36:37 | -165.43 | 28780 | 195 04:56:17 | -143.28 | 19844 | 195 04:25:06 | 145.27 | 9277 | | | | | | | | | | |
| 195 06:18:38 | 169.06 | 28781 | 195 06:37:30 | -168.58 | 19845 | 195 06:07:11 | 119.75 | 9278 | | | | | | | | | | |
| 195 08:00:38 | 143.57 | 28782 | 195 08:18:43 | 166.11 | 19846 | 195 07:49:16 | 94.23 | 9279 | | | | | | | | | | |
| 195 09:42:39 | 118.06 | 28783 | 195 09:59:56 | 140.81 | 19847 | 195 09:31:21 | 68.71 | 9280 | | | | | | | | | | |
| 195 11:24:39 | 92.57 | 28784 | 195 11:41:10 | 115.50 | 19848 | 195 11:13:25 | 43.20 | 9281 | | | | | | | | | | |
| 195 13:06:40 | 67.06 | 28785 | 195 13:22:23 | 90.19 | 19849 | 195 12:55:30 | 17.68 | 9282 | | | | | | | | | | |
| 195 14:48:40 | 41.57 | 28786 | 195 15:03:36 | 64.89 | 19850 | 195 14:37:35 | -7.85 | 9283 | | | | | | | | | | |
| 195 16:30:40 | 16.08 | 28787 | 195 16:44:49 | 39.59 | 19851 | 195 16:19:40 | -33.37 | 9284 | | | | | | | | | | |
| 195 18:12:41 | -9.43 | 28788 | 195 18:26:03 | 14.27 | 19852 | 195 18:01:45 | -58.89 | 9285 | | | | | | | | | | |
| 195 19:54:41 | -34.92 | 28789 | 195 20:07:16 | -11.03 | 19853 | 195 19:43:49 | -84.40 | 9286 | | | | | | | | | | |
| 195 21:36:42 | -60.43 | 28790 | 195 21:48:29 | -36.33 | 19854 | 195 21:25:54 | -109.92 | 9287 | | | | | | | | | | |
| 195 23:18:42 | -85.92 | 28791 | 195 23:29:42 | -61.64 | 19855 | 195 23:07:59 | -135.44 | 9288 | | | | | | | | | | |

SATELLITE C3
Ascending Node Predictions

Predicting for 186 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 196 00:54:46 | 95.51 | 30389 |
| 196 02:39:41 | 69.16 | 30390 |
| 196 04:24:36 | 42.80 | 30391 |
| 196 06:09:31 | 16.45 | 30392 |
| 196 07:54:26 | -9.90 | 30393 |
| 196 09:39:20 | -36.26 | 30394 |
| 196 11:24:15 | -62.61 | 30395 |
| 196 13:09:10 | -88.97 | 30396 |
| 196 14:54:05 | -115.32 | 30397 |
| 196 16:39:00 | -141.67 | 30398 |
| 196 18:23:55 | -168.03 | 30399 |
| 196 20:08:49 | 165.62 | 30400 |
| 196 21:53:44 | 139.26 | 30401 |
| 196 23:38:39 | 112.91 | 30402 |

SATELLITE C4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 196 00:00:17 | -28.12 | 5154 |
| 196 01:45:11 | -54.46 | 5155 |
| 196 03:30:04 | -80.82 | 5156 |
| 196 05:14:58 | -107.16 | 5157 |
| 196 06:59:52 | -133.51 | 5158 |
| 196 08:44:46 | -159.86 | 5159 |
| 196 10:29:39 | 173.79 | 5160 |
| 196 12:14:33 | 147.44 | 5161 |
| 196 13:59:27 | 121.09 | 5162 |
| 196 15:44:21 | 94.74 | 5163 |
| 196 17:29:14 | 68.39 | 5164 |
| 196 19:14:08 | 42.04 | 5165 |
| 196 20:59:02 | 15.69 | 5166 |
| 196 22:43:55 | -10.66 | 5167 |

| | | |
|--------------|---------|-------|
| 197 01:23:34 | 86.55 | 30403 |
| 197 03:08:29 | 60.20 | 30404 |
| 197 04:53:24 | 33.05 | 30405 |
| 197 06:38:18 | 7.49 | 30406 |
| 197 08:23:13 | -18.86 | 30407 |
| 197 10:08:08 | -45.22 | 30408 |
| 197 11:53:03 | -71.57 | 30409 |
| 197 13:37:58 | -97.92 | 30410 |
| 197 15:22:53 | -124.28 | 30411 |
| 197 17:07:47 | -150.63 | 30412 |
| 197 18:52:42 | -176.99 | 30413 |
| 197 20:37:37 | 156.66 | 30414 |
| 197 22:22:32 | 130.31 | 30415 |

| | | |
|--------------|---------|------|
| 197 00:28:49 | -37.01 | 5168 |
| 197 02:13:43 | -63.36 | 5169 |
| 197 03:58:37 | -89.70 | 5170 |
| 197 05:43:30 | -116.06 | 5171 |
| 197 07:28:24 | -142.40 | 5172 |
| 197 09:13:18 | -168.75 | 5173 |
| 197 10:58:12 | 164.90 | 5174 |
| 197 12:43:05 | 138.55 | 5175 |
| 197 14:27:59 | 112.20 | 5176 |
| 197 16:12:53 | 85.85 | 5177 |
| 197 17:57:47 | 59.50 | 5178 |
| 197 19:42:40 | 33.15 | 5179 |
| 197 21:27:34 | 6.80 | 5180 |
| 197 23:12:28 | -19.55 | 5181 |

| | | |
|--------------|---------|-------|
| 198 00:07:27 | 103.95 | 30416 |
| 198 01:52:22 | 77.60 | 30417 |
| 198 03:37:17 | 51.25 | 30418 |
| 198 05:22:11 | 24.89 | 30419 |
| 198 07:07:06 | -1.46 | 30420 |
| 198 08:52:01 | -27.82 | 30421 |
| 198 10:36:56 | -54.17 | 30422 |
| 198 12:21:51 | -80.52 | 30423 |
| 198 14:06:46 | -106.88 | 30424 |
| 198 15:51:40 | -133.23 | 30425 |
| 198 17:36:35 | -159.59 | 30426 |
| 198 19:21:30 | 174.06 | 30427 |
| 198 21:06:25 | 147.70 | 30428 |
| 198 22:51:20 | 121.35 | 30429 |

| | | |
|--------------|---------|------|
| 198 00:57:21 | -45.90 | 5182 |
| 198 02:42:15 | -72.25 | 5183 |
| 198 04:27:09 | -98.60 | 5184 |
| 198 06:12:03 | -124.94 | 5185 |
| 198 07:56:56 | -151.30 | 5186 |
| 198 09:41:50 | -177.64 | 5187 |
| 198 11:26:44 | 156.01 | 5188 |
| 198 13:11:38 | 129.66 | 5189 |
| 198 14:56:31 | 103.31 | 5190 |
| 198 16:41:25 | 76.96 | 5191 |
| 198 18:26:19 | 50.61 | 5192 |
| 198 20:11:13 | 24.26 | 5193 |
| 198 21:56:06 | -2.09 | 5194 |
| 198 23:41:00 | -28.44 | 5195 |

| | | |
|--------------|---------|-------|
| 199 00:36:15 | 95.00 | 30430 |
| 199 02:21:09 | 68.64 | 30431 |
| 199 04:06:04 | 42.29 | 30432 |
| 199 05:50:59 | 15.93 | 30433 |
| 199 07:35:54 | -10.42 | 30434 |
| 199 09:20:49 | -36.77 | 30435 |
| 199 11:05:44 | -63.13 | 30436 |
| 199 12:50:38 | -89.48 | 30437 |
| 199 14:35:33 | -115.84 | 30438 |
| 199 16:20:28 | -142.19 | 30439 |
| 199 18:05:23 | -168.54 | 30440 |
| 199 19:50:18 | 165.10 | 30441 |
| 199 21:35:13 | 138.75 | 30442 |
| 199 23:20:08 | 112.40 | 30443 |

| | | |
|--------------|---------|------|
| 199 01:25:54 | -54.79 | 5196 |
| 199 03:10:47 | -81.14 | 5197 |
| 199 04:55:41 | -107.49 | 5198 |
| 199 06:40:35 | -133.84 | 5199 |
| 199 08:25:29 | -160.18 | 5200 |
| 199 10:10:22 | 173.46 | 5201 |
| 199 11:55:16 | 147.12 | 5202 |
| 199 13:40:10 | 120.77 | 5203 |
| 199 15:25:04 | 94.42 | 5204 |
| 199 17:09:57 | 68.07 | 5205 |
| 199 18:54:51 | 41.72 | 5206 |
| 199 20:39:45 | 15.37 | 5207 |
| 199 22:24:39 | -10.98 | 5208 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 196 01:00:43 | -111.43 | 28792 |
| 196 02:42:43 | -136.92 | 28793 |
| 196 04:24:44 | -162.42 | 28794 |
| 196 06:06:44 | 172.08 | 28795 |
| 196 07:48:45 | 146.58 | 28796 |
| 196 09:30:45 | 121.08 | 28797 |
| 196 11:12:46 | 95.58 | 28798 |
| 196 12:54:46 | 70.08 | 28799 |
| 196 14:36:47 | 44.58 | 28800 |
| 196 16:18:47 | 19.09 | 28801 |
| 196 18:00:48 | -6.42 | 28802 |
| 196 19:42:48 | -31.91 | 28803 |
| 196 21:24:49 | -57.42 | 28804 |
| 196 23:06:49 | -82.91 | 28805 |

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 196 01:10:55 | -86.94 | 19856 |
| 196 02:52:09 | -112.26 | 19857 |
| 196 04:33:22 | -137.56 | 19858 |
| 196 06:14:35 | -162.86 | 19859 |
| 196 07:55:48 | 171.84 | 19860 |
| 196 09:37:01 | 146.53 | 19861 |
| 196 11:18:15 | 121.22 | 19862 |
| 196 12:59:28 | 95.91 | 19863 |
| 196 14:40:41 | 70.61 | 19864 |
| 196 16:21:54 | 45.31 | 19865 |
| 196 18:03:07 | 20.00 | 19866 |
| 196 19:44:21 | -5.31 | 19867 |
| 196 21:25:34 | -30.61 | 19868 |
| 196 23:06:47 | -55.92 | 19869 |

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 196 00:50:04 | -160.96 | 9289 |
| 196 02:32:09 | 173.52 | 9290 |
| 196 04:14:13 | 148.01 | 9291 |
| 196 05:56:18 | 122.49 | 9292 |
| 196 07:38:23 | 96.96 | 9293 |
| 196 09:20:28 | 71.44 | 9294 |
| 196 11:02:32 | 45.93 | 9295 |
| 196 12:44:37 | 20.41 | 9296 |
| 196 14:26:42 | -5.11 | 9297 |
| 196 16:08:47 | -30.63 | 9298 |
| 196 17:50:52 | -56.15 | 9299 |
| 196 19:32:56 | -81.66 | 9300 |
| 196 21:15:01 | -107.18 | 9301 |
| 196 22:57:06 | -132.71 | 9302 |

| | | |
|--------------|---------|-------|
| 197 00:48:50 | -108.42 | 28806 |
| 197 02:30:50 | -133.91 | 28807 |
| 197 04:12:51 | -159.42 | 28808 |
| 197 05:54:51 | 175.09 | 28809 |
| 197 07:36:52 | 149.58 | 28810 |
| 197 09:18:52 | 124.09 | 28811 |
| 197 11:00:53 | 98.58 | 28812 |
| 197 12:42:53 | 73.09 | 28813 |
| 197 14:24:54 | 47.58 | 28814 |
| 197 16:06:54 | 22.09 | 28815 |
| 197 17:48:55 | -3.41 | 28816 |
| 197 19:30:55 | -28.91 | 28817 |
| 197 21:12:56 | -54.41 | 28818 |
| 197 22:54:56 | -79.91 | 28819 |

| | | |
|--------------|---------|-------|
| 197 00:48:00 | -81.22 | 19870 |
| 197 02:29:13 | -106.32 | 19871 |
| 197 04:10:27 | -131.84 | 19872 |
| 197 05:51:40 | -157.14 | 19873 |
| 197 07:32:53 | 177.56 | 19874 |
| 197 09:14:06 | 152.25 | 19875 |
| 197 10:55:19 | 126.95 | 19876 |
| 197 12:36:33 | 101.63 | 19877 |
| 197 14:17:46 | 76.33 | 19878 |
| 197 15:58:59 | 51.03 | 19879 |
| 197 17:40:12 | 25.73 | 19880 |
| 197 19:21:25 | .42 | 19881 |
| 197 21:02:39 | -24.89 | 19882 |
| 197 22:43:52 | -50.20 | 19883 |

| | | |
|--------------|---------|------|
| 197 00:39:11 | -158.23 | 9303 |
| 197 02:21:16 | 176.25 | 9304 |
| 197 04:03:20 | 150.74 | 9305 |
| 197 05:45:25 | 125.22 | 9306 |
| 197 07:27:30 | 99.70 | 9307 |
| 197 09:09:35 | 74.18 | 9308 |
| 197 10:51:40 | 48.65 | 9309 |
| 197 12:33:44 | 23.15 | 9310 |
| 197 14:15:49 | -2.38 | 9311 |
| 197 15:57:54 | -27.90 | 9312 |
| 197 17:39:59 | -53.42 | 9313 |
| 197 19:22:03 | -78.93 | 9314 |
| 197 21:04:06 | -104.45 | 9315 |
| 197 22:46:13 | -129.97 | 9316 |

| | | |
|--------------|---------|-------|
| 198 00:36:57 | -105.41 | 28820 |
| 198 02:18:57 | -130.91 | 28821 |
| 198 04:00:58 | -156.41 | 28822 |
| 198 05:42:58 | 178.10 | 28823 |
| 198 07:24:59 | 152.59 | 28824 |
| 198 09:06:59 | 127.10 | 28825 |
| 198 10:49:00 | 101.59 | 28826 |
| 198 12:31:00 | 76.10 | 28827 |
| 198 14:13:01 | 50.59 | 28828 |
| 198 15:55:01 | 25.10 | 28829 |
| 198 17:37:02 | -.41 | 28830 |
| 198 19:19:02 | -25.90 | 28831 |
| 198 21:01:03 | -51.41 | 28832 |
| 198 22:43:03 | -76.90 | 28833 |

| | | |
|--------------|---------|-------|
| 198 00:25:05 | -75.50 | 19884 |
| 198 02:06:18 | -100.80 | 19885 |
| 198 03:47:31 | -126.11 | 19886 |
| 198 05:28:45 | -151.42 | 19887 |
| 198 07:09:58 | -176.72 | 19888 |
| 198 08:51:11 | 157.97 | 19889 |
| 198 10:32:24 | 132.67 | 19890 |
| 198 12:13:37 | 107.37 | 19891 |
| 198 13:54:51 | 82.05 | 19892 |
| 198 15:36:04 | 56.75 | 19893 |
| 198 17:17:17 | 31.45 | 19894 |
| 198 18:58:30 | 6.14 | 19895 |
| 198 20:39:43 | -19.16 | 19896 |
| 198 22:20:57 | -44.48 | 19897 |

| | | |
|--------------|---------|------|
| 198 00:28:18 | -155.49 | 9317 |
| 198 02:10:23 | 178.98 | 9318 |
| 198 03:52:27 | 153.48 | 9319 |
| 198 05:34:32 | 127.95 | 9320 |
| 198 07:16:37 | 102.43 | 9321 |
| 198 08:58:42 | 76.91 | 9322 |
| 198 10:40:47 | 51.39 | 9323 |
| 198 12:22:51 | 25.88 | 9324 |
| 198 14:04:56 | .36 | 9325 |
| 198 15:47:01 | -25.16 | 9326 |
| 198 17:29:06 | -50.68 | 9327 |
| 198 19:11:11 | -76.21 | 9328 |
| 198 20:53:15 | -101.72 | 9329 |
| 198 22:35:20 | -127.24 | 9330 |

| | | |
|--------------|---------|-------|
| 199 00:23:04 | -102.41 | 28834 |
| 199 02:07:04 | -127.90 | 28835 |
| 199 03:49:05 | -153.41 | 28836 |
| 199 05:31:05 | -178.90 | 28837 |
| 199 07:13:06 | 155.60 | 28838 |
| 199 08:55:06 | 130.10 | 28839 |
| 199 10:37:07 | 104.60 | 28840 |
| 199 12:19:07 | 79.10 | 28841 |
| 199 14:01:08 | 53.60 | 28842 |
| 199 15:43:08 | 28.10 | 28843 |
| 199 17:25:09 | 2.60 | 28844 |
| 199 19:07:09 | -22.90 | 28845 |
| 199 20:49:10 | -48.40 | 28846 |
| 199 22:31:10 | -73.89 | 28847 |

| | | |
|--------------|---------|-------|
| 199 00:02:10 | -69.78 | 19898 |
| 199 01:43:23 | -95.08 | 19899 |
| 199 03:24:36 | -120.38 | 19900 |
| 199 05:05:49 | -145.69 | 19901 |
| 199 06:47:03 | -171.00 | 19902 |
| 199 08:28:16 | 163.69 | 19903 |
| 199 10:09:29 | 138.39 | 19904 |
| 199 11:50:42 | 113.09 | 19905 |
| 199 13:31:55 | 87.78 | 19906 |
| 199 15:13:09 | 62.47 | 19907 |
| 199 16:54:22 | 37.17 | 19908 |
| 199 18:35:35 | 11.86 | 19909 |
| 199 20:16:48 | -13.44 | 19910 |
| 199 21:58:01 | -38.74 | 19911 |
| 199 23:39:15 | -64.06 | 19912 |

| | | |
|--------------|---------|------|
| 199 00:17:25 | -152.76 | 9331 |
| 199 01:59:30 | -178.28 | 9332 |
| 199 03:41:34 | 156.21 | 9333 |
| 199 05:23:39 | 130.69 | 9334 |
| 199 07:05:44 | 105.17 | 9335 |
| 199 08:47:49 | 79.65 | 9336 |
| 199 10:29:54 | 54.12 | 9337 |
| 199 12:11:58 | 28.62 | 9338 |
| 199 13:54:03 | 3.09 | 9339 |
| 199 15:36:08 | -22.43 | 9340 |
| 199 17:18:13 | -47.95 | 9341 |
| 199 19:00:18 | -73.47 | 9342 |
| 199 20:42:22 | -98.98 | 9343 |
| 199 22:24:27 | -124.50 | 9344 |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 200 01:05:02 | 86.04 | 30444 |
| 200 02:49:57 | 59.69 | 30445 |
| 200 04:34:52 | 33.33 | 30446 |
| 200 06:19:47 | 6.98 | 30447 |
| 200 08:04:42 | -19.37 | 30448 |
| 200 09:49:37 | -45.73 | 30449 |
| 200 11:34:31 | -72.08 | 30450 |
| 200 13:19:26 | -98.44 | 30451 |
| 200 15:04:21 | -124.79 | 30452 |
| 200 16:49:16 | -151.15 | 30453 |
| 200 18:34:11 | -177.50 | 30454 |
| 200 20:19:06 | -156.15 | 30455 |
| 200 22:04:00 | 129.79 | 30456 |
| 200 23:48:55 | 103.44 | 30457 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 200 00:09:32 | -37.33 | 5209 |
| 200 01:54:26 | -63.68 | 5210 |
| 200 03:39:20 | -90.03 | 5211 |
| 200 05:24:13 | -116.38 | 5212 |
| 200 07:09:07 | -142.73 | 5213 |
| 200 08:54:01 | -169.08 | 5214 |
| 200 10:38:55 | 164.57 | 5215 |
| 200 12:23:48 | 138.22 | 5216 |
| 200 14:08:42 | 111.87 | 5217 |
| 200 15:53:36 | 85.53 | 5218 |
| 200 17:38:30 | 59.18 | 5219 |
| 200 19:23:23 | 32.83 | 5220 |
| 200 21:08:17 | 6.48 | 5221 |
| 200 22:53:11 | -19.87 | 5222 |

| | | |
|--------------|---------|-------|
| 201 01:33:50 | 77.08 | 30458 |
| 201 03:18:45 | 50.73 | 30459 |
| 201 05:03:40 | 24.38 | 30460 |
| 201 06:48:35 | -1.98 | 30461 |
| 201 08:33:29 | -28.33 | 30462 |
| 201 10:18:24 | -54.69 | 30463 |
| 201 12:03:19 | -81.04 | 30464 |
| 201 13:48:14 | -107.39 | 30465 |
| 201 15:33:09 | -133.75 | 30466 |
| 201 17:18:04 | -160.10 | 30467 |
| 201 19:02:59 | 173.55 | 30468 |
| 201 20:47:53 | 147.19 | 30469 |
| 201 22:32:48 | 120.84 | 30470 |

| | | |
|--------------|---------|------|
| 201 00:38:05 | -46.22 | 5223 |
| 201 02:22:58 | -72.57 | 5224 |
| 201 04:07:52 | -98.92 | 5225 |
| 201 05:52:46 | -125.27 | 5226 |
| 201 07:37:40 | -151.62 | 5227 |
| 201 09:22:33 | -177.97 | 5228 |
| 201 11:07:27 | 155.68 | 5229 |
| 201 12:52:21 | 129.33 | 5230 |
| 201 14:37:14 | 102.98 | 5231 |
| 201 16:22:08 | 76.63 | 5232 |
| 201 18:07:02 | 50.29 | 5233 |
| 201 19:51:56 | 23.94 | 5234 |
| 201 21:36:49 | -2.42 | 5235 |
| 201 23:21:43 | -28.76 | 5236 |

| | | |
|--------------|---------|-------|
| 202 00:17:43 | 94.48 | 30471 |
| 202 02:02:38 | 68.13 | 30472 |
| 202 03:47:33 | 41.78 | 30473 |
| 202 05:32:28 | 15.42 | 30474 |
| 202 07:17:22 | -10.93 | 30475 |
| 202 09:02:17 | -37.29 | 30476 |
| 202 10:47:12 | -63.64 | 30477 |
| 202 12:32:07 | -90.00 | 30478 |
| 202 14:17:02 | -116.35 | 30479 |
| 202 16:01:57 | -142.70 | 30480 |
| 202 17:46:51 | -169.06 | 30481 |
| 202 19:31:46 | 164.59 | 30482 |
| 202 21:16:41 | 138.23 | 30483 |
| 202 23:01:36 | 111.88 | 30484 |

| | | |
|--------------|---------|------|
| 202 01:06:37 | -55.11 | 5237 |
| 202 02:51:31 | -81.46 | 5238 |
| 202 04:36:24 | -107.81 | 5239 |
| 202 06:21:18 | -134.16 | 5240 |
| 202 08:06:12 | -160.51 | 5241 |
| 202 09:51:06 | 173.14 | 5242 |
| 202 11:35:59 | 146.79 | 5243 |
| 202 13:20:53 | 120.44 | 5244 |
| 202 15:05:47 | 94.09 | 5245 |
| 202 16:50:41 | 67.74 | 5246 |
| 202 18:35:34 | 41.39 | 5247 |
| 202 20:20:28 | 15.04 | 5248 |
| 202 22:05:22 | -11.30 | 5249 |
| 202 23:50:15 | -37.66 | 5250 |

| | | |
|--------------|---------|-------|
| 203 00:46:31 | 85.53 | 30485 |
| 203 02:31:26 | 59.17 | 30486 |
| 203 04:16:21 | 32.82 | 30487 |
| 203 06:01:15 | 6.46 | 30488 |
| 203 07:46:10 | -19.89 | 30489 |
| 203 09:31:05 | -46.24 | 30490 |
| 203 11:16:00 | -72.60 | 30491 |
| 203 13:00:55 | -98.95 | 30492 |
| 203 14:45:50 | -125.30 | 30493 |
| 203 16:30:44 | -151.66 | 30494 |
| 203 18:15:39 | -178.01 | 30495 |
| 203 20:00:34 | 155.63 | 30496 |
| 203 21:45:29 | 129.28 | 30497 |
| 203 23:30:24 | 102.92 | 30498 |

| | | |
|--------------|---------|------|
| 203 01:35:09 | -64.00 | 5251 |
| 203 03:20:03 | -90.35 | 5252 |
| 203 05:04:57 | -116.70 | 5253 |
| 203 06:49:50 | -143.05 | 5254 |
| 203 08:34:44 | -169.40 | 5255 |
| 203 10:19:38 | 164.25 | 5256 |
| 203 12:04:32 | 137.90 | 5257 |
| 203 13:49:25 | 111.55 | 5258 |
| 203 15:34:19 | 85.20 | 5259 |
| 203 17:19:13 | 58.85 | 5260 |
| 203 19:04:07 | 32.50 | 5261 |
| 203 20:49:00 | 6.15 | 5262 |
| 203 22:33:54 | -20.20 | 5263 |

| SATELLITE S2 | | | | | | | SATELLITE S3 | | | | | | | SATELLITE S4 | | | | | | | | | | | | | | | |
|----------------------------|---------|-------|--------------|---------|-------|--------------|----------------------------|-------|-----|----|----|----|-----|----------------------------|---------|------|----|-----|----|-----|----|----|----|-----|----|--|--|--|--|
| Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | | | | | | | | | |
| Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | | | | | | | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | day | hr | mn | sc | deg | day | hr | mn | sc | deg | dg | day | hr | mn | sc | deg | dg | | | | |
| 200 00:13:11 | -99.40 | 28848 | 200 01:20:28 | -89.36 | 19913 | 200 00:06:32 | -150.02 | 9345 | | | | | | 200 01:48:37 | -175.55 | 9346 | | | | | | | | | | | | | |
| 200 01:55:11 | -124.89 | 28849 | 200 03:01:41 | -114.66 | 19914 | 200 03:30:42 | 158.93 | 9347 | | | | | | 200 05:12:46 | 133.42 | 9348 | | | | | | | | | | | | | |
| 200 03:37:12 | -150.40 | 28850 | 200 04:42:54 | -139.97 | 19915 | 200 06:54:51 | 107.90 | 9349 | | | | | | 200 08:36:56 | 82.38 | 9350 | | | | | | | | | | | | | |
| 200 05:19:12 | -175.89 | 28851 | 200 06:24:07 | -165.27 | 19916 | 200 10:19:01 | 56.86 | 9351 | | | | | | 200 12:01:05 | 31.35 | 9352 | | | | | | | | | | | | | |
| 200 07:01:13 | -158.60 | 28852 | 200 08:05:21 | 169.41 | 19917 | 200 13:43:10 | 5.83 | 9353 | | | | | | 200 15:25:15 | -19.69 | 9354 | | | | | | | | | | | | | |
| 200 08:43:13 | 133.11 | 28853 | 200 09:46:34 | 144.11 | 19918 | 200 17:07:20 | -45.22 | 9355 | | | | | | 200 18:49:25 | -70.74 | 9356 | | | | | | | | | | | | | |
| 200 10:25:14 | 107.60 | 28854 | 200 11:27:47 | 118.81 | 19919 | 200 20:31:29 | -96.25 | 9357 | | | | | | 200 22:13:34 | -121.77 | 9358 | | | | | | | | | | | | | |
| 200 12:07:14 | 82.11 | 28855 | 200 13:09:00 | 93.51 | 19920 | 200 23:55:39 | -147.29 | 9359 | | | | | | | | | | | | | | | | | | | | | |
| 200 13:49:15 | 56.60 | 28856 | 200 14:50:13 | 68.20 | 19921 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 15:31:15 | 31.11 | 28857 | 200 16:31:27 | 42.89 | 19922 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 17:13:16 | 5.60 | 28858 | 200 18:12:40 | 17.58 | 19923 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 18:55:16 | -19.89 | 28859 | 200 19:53:53 | -7.72 | 19924 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 20:37:17 | -45.39 | 28860 | 200 21:35:06 | -33.02 | 19925 | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 22:19:17 | -70.89 | 28861 | 200 23:16:19 | -58.33 | 19926 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 00:01:18 | -96.39 | 28862 | 201 00:57:33 | -83.64 | 19927 | 201 01:37:44 | -172.81 | 9360 | | | | | | 201 03:19:49 | 161.67 | 9361 | | | | | | | | | | | | | |
| 201 01:43:18 | -121.89 | 28863 | 201 02:38:46 | -108.94 | 19928 | 201 05:01:53 | 136.16 | 9362 | | | | | | 201 06:43:58 | 110.64 | 9363 | | | | | | | | | | | | | |
| 201 03:25:19 | -147.39 | 28864 | 201 04:19:59 | -134.25 | 19929 | 201 08:26:03 | 85.11 | 9364 | | | | | | 201 10:08:08 | 59.59 | 9365 | | | | | | | | | | | | | |
| 201 05:07:19 | -172.89 | 28865 | 201 06:01:12 | -159.55 | 19930 | 201 11:50:13 | 34.07 | 9366 | | | | | | 201 13:32:17 | 8.56 | 9367 | | | | | | | | | | | | | |
| 201 06:49:20 | 161.61 | 28866 | 201 07:42:25 | 175.15 | 19931 | 201 15:14:22 | -16.96 | 9368 | | | | | | 201 16:56:27 | -42.48 | 9369 | | | | | | | | | | | | | |
| 201 08:31:20 | 136.12 | 28867 | 201 09:23:39 | 149.83 | 19932 | 201 18:38:32 | -68.00 | 9370 | | | | | | 201 20:20:36 | -93.51 | 9371 | | | | | | | | | | | | | |
| 201 10:13:21 | 110.61 | 28868 | 201 11:04:52 | 124.53 | 19933 | 201 22:02:41 | -119.03 | 9372 | | | | | | 201 23:44:46 | -144.55 | 9373 | | | | | | | | | | | | | |
| 201 11:55:21 | 85.12 | 28869 | 201 12:46:05 | 99.23 | 19934 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 13:37:22 | 59.61 | 28870 | 201 14:27:18 | 73.92 | 19935 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 15:19:22 | 34.12 | 28871 | 201 16:08:31 | 48.62 | 19936 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 17:01:23 | 8.61 | 28872 | 201 17:49:45 | 23.30 | 19937 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 18:43:23 | -16.88 | 28873 | 201 19:30:58 | -2.00 | 19938 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 20:25:24 | -42.39 | 28874 | 201 21:12:11 | -27.30 | 19939 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 22:07:24 | -67.88 | 28875 | 201 22:53:24 | -52.60 | 19940 | | | | | | | | | | | | | | | | | | | | | | | | |
| 201 23:49:25 | -93.39 | 28876 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 01:31:25 | -118.88 | 28877 | 202 00:34:37 | -77.91 | 19941 | 202 01:26:51 | -170.08 | 9374 | | | | | | 202 03:08:56 | 164.40 | 9375 | | | | | | | | | | | | | |
| 202 03:13:26 | -144.39 | 28878 | 202 02:15:51 | -103.22 | 19942 | 202 04:51:00 | 138.89 | 9376 | | | | | | 202 06:33:05 | 113.37 | 9377 | | | | | | | | | | | | | |
| 202 04:55:26 | -169.88 | 28879 | 202 03:57:04 | -128.53 | 19943 | 202 08:15:10 | 87.85 | 9378 | | | | | | 202 09:57:15 | 62.33 | 9379 | | | | | | | | | | | | | |
| 202 06:37:27 | 164.61 | 28880 | 202 05:38:17 | -153.83 | 19944 | 202 11:39:20 | 36.81 | 9380 | | | | | | 202 13:21:24 | 11.30 | 9381 | | | | | | | | | | | | | |
| 202 08:19:27 | 139.12 | 28881 | 202 07:19:30 | -179.13 | 19945 | 202 15:03:29 | -14.22 | 9382 | | | | | | 202 16:45:34 | -39.75 | 9383 | | | | | | | | | | | | | |
| 202 10:01:28 | 113.62 | 28882 | 202 09:00:43 | 155.56 | 19946 | 202 18:27:39 | -65.27 | 9384 | | | | | | 202 20:09:44 | -90.79 | 9385 | | | | | | | | | | | | | |
| 202 11:43:28 | 88.12 | 28883 | 202 10:41:57 | 130.25 | 19947 | 202 21:51:48 | -116.30 | 9386 | | | | | | 202 23:33:53 | -141.82 | 9387 | | | | | | | | | | | | | |
| 202 13:25:28 | 62.63 | 28884 | 202 12:23:10 | 104.95 | 19948 | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 15:07:29 | 37.12 | 28885 | 202 14:04:23 | 79.64 | 19949 | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 16:49:29 | 11.63 | 28886 | 202 15:45:36 | 54.34 | 19950 | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 18:31:30 | -13.88 | 28887 | 202 17:26:49 | 29.04 | 19951 | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 20:13:30 | -39.37 | 28888 | 202 19:08:03 | 3.72 | 19952 | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 21:55:31 | -64.87 | 28889 | 202 20:49:16 | -21.58 | 19953 | | | | | | | | | | | | | | | | | | | | | | | | |
| 202 23:37:31 | -90.37 | 28890 | 202 22:30:29 | -46.88 | 19954 | | | | | | | | | | | | | | | | | | | | | | | | |
| 203 01:19:32 | -115.87 | 28891 | 203 00:11:42 | -72.19 | 19955 | 203 01:15:58 | -167.34 | 9388 | | | | | | 203 02:58:03 | 167.14 | 9389 | | | | | | | | | | | | | |
| 203 03:01:32 | -141.37 | 28892 | 203 01:52:55 | -97.49 | 19956 | 203 04:40:08 | 141.61 | 9390 | | | | | | 203 06:22:12 | 116.11 | 9391 | | | | | | | | | | | | | |
| 203 04:43:33 | -166.87 | 28893 | 203 03:34:09 | -122.81 | 19957 | 203 08:04:17 | 90.58 | 9392 | | | | | | 203 09:46:22 | 65.06 | 9393 | | | | | | | | | | | | | |
| 203 06:25:33 | 167.63 | 28894 | 203 05:15:22 | -148.11 | 19958 | 203 11:28:27 | 39.54 | 9394 | | | | | | 203 13:10:31 | 14.03 | 9395 | | | | | | | | | | | | | |
| 203 08:07:34 | 142.13 | 28895 | 203 06:56:35 | -173.41 | 19959 | 203 14:52:36 | -11.49 | 9396 | | | | | | 203 16:34:41 | -37.01 | 9397 | | | | | | | | | | | | | |
| 203 09:49:34 | 116.64 | 28896 | 203 08:37:48 | 161.28 | 19960 | 203 18:16:46 | -62.53 | 9398 | | | | | | 203 19:58:51 | -88.05 | 9399 | | | | | | | | | | | | | |
| 203 11:31:35 | 91.13 | 28897 | 203 10:19:01 | 135.98 | 19961 | 203 21:40:55 | -113.56 | 9400 | | | | | | 203 23:23:00 | -139.09 | 9401 | | | | | | | | | | | | | |
| 203 13:13:35 | 65.64 | 28898 | 203 12:00:15 | 110.67 | 19962 | | | | | | | | | | | | | | | | | | | | | | | | |
| 203 14:55:36 | 40.13 | 28899 | 203 13:41:28 | 85.36 | 19963 | | | | | | | | | | | | | | | | | | | | | | | | |
| 203 16:37:36 | 14.64 | 28900 | 203 15:22:41 | 60.06 | 19964 | | | | | | | | | | | | | | | | | | | | | | | | |
| 203 18:19:37 | -10.87 | 28901 | 203 17:03:54 | 34.76 | | | | | | | | | | | | | | | | | | | | | | | | | |

| SATELLITE C3 | | | | | | |
|----------------------------|---------|-------|-------|-----|----|--|
| Ascending Node Predictions | | | | | | |
| Predicting for 186 days | | | | | | |
| TIME (GMT) | E | LONG | ORBIT | | | |
| day | hr | mn | sc | deg | dg | |
| 204 01:15:19 | 76.57 | 30499 | | | | |
| 204 03:00:14 | 50.22 | 30500 | | | | |
| 204 04:45:08 | 23.86 | 30501 | | | | |
| 204 06:30:03 | -2.49 | 30502 | | | | |
| 204 08:14:58 | -28.85 | 30503 | | | | |
| 204 09:59:53 | -55.20 | 30504 | | | | |
| 204 11:44:48 | -81.55 | 30505 | | | | |
| 204 13:29:43 | -107.91 | 30506 | | | | |
| 204 15:14:37 | -134.26 | 30507 | | | | |
| 204 16:59:32 | -160.62 | 30508 | | | | |
| 204 18:44:27 | 173.03 | 30509 | | | | |
| 204 20:29:22 | 146.68 | 30510 | | | | |
| 204 22:14:17 | 120.32 | 30511 | | | | |
| 204 23:59:12 | 93.97 | 30512 | | | | |

| SATELLITE C4 | | | | | | |
|----------------------------|---------|------|-------|-----|----|--|
| Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | |
| TIME (GMT) | E | LONG | ORBIT | | | |
| day | hr | mn | sc | deg | dg | |
| 204 00:18:48 | -46.55 | 5264 | | | | |
| 204 02:03:42 | -72.89 | 5265 | | | | |
| 204 03:48:35 | -99.25 | 5266 | | | | |
| 204 05:33:29 | -125.59 | 5267 | | | | |
| 204 07:18:23 | -151.94 | 5268 | | | | |
| 204 09:03:16 | -178.29 | 5269 | | | | |
| 204 10:48:10 | 155.36 | 5270 | | | | |
| 204 12:33:04 | 129.01 | 5271 | | | | |
| 204 14:17:58 | 102.66 | 5272 | | | | |
| 204 16:02:51 | 76.31 | 5273 | | | | |
| 204 17:47:45 | 49.96 | 5274 | | | | |
| 204 19:32:39 | 23.61 | 5275 | | | | |
| 204 21:17:33 | -2.74 | 5276 | | | | |
| 204 23:02:26 | -29.09 | 5277 | | | | |

| | | | | | | |
|--------------|---------|-------|--|--|--|--|
| 205 01:44:06 | 67.61 | 30513 | | | | |
| 205 03:29:01 | 41.26 | 30514 | | | | |
| 205 05:13:56 | 14.91 | 30515 | | | | |
| 205 06:58:51 | -11.45 | 30516 | | | | |
| 205 08:43:46 | -37.80 | 30517 | | | | |
| 205 10:28:41 | -64.16 | 30518 | | | | |
| 205 12:13:36 | -90.51 | 30519 | | | | |
| 205 13:58:30 | -116.87 | 30520 | | | | |
| 205 15:43:25 | -143.22 | 30521 | | | | |
| 205 17:28:20 | -169.57 | 30522 | | | | |
| 205 19:13:15 | 164.07 | 30523 | | | | |
| 205 20:58:10 | 137.72 | 30524 | | | | |
| 205 22:43:05 | 111.37 | 30525 | | | | |
| 205 00:47:20 | -53.44 | 5278 | | | | |
| 205 02:32:14 | -81.79 | 5279 | | | | |
| 205 04:17:08 | -108.14 | 5280 | | | | |
| 205 06:02:01 | -134.49 | 5281 | | | | |
| 205 07:46:55 | -160.84 | 5282 | | | | |
| 205 09:31:49 | 172.82 | 5283 | | | | |
| 205 11:16:43 | 146.47 | 5284 | | | | |
| 205 13:01:36 | 120.12 | 5285 | | | | |
| 205 14:46:30 | 93.77 | 5286 | | | | |
| 205 16:31:24 | 67.42 | 5287 | | | | |
| 205 18:16:18 | 41.07 | 5288 | | | | |
| 205 20:01:11 | 14.72 | 5289 | | | | |
| 205 21:46:05 | -11.63 | 5290 | | | | |
| 205 23:30:59 | -37.98 | 5291 | | | | |

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|--------------|---------|-------|--|--|--|--|
| 206 00:27:59 | 85.01 | 30526 | | | | |
| 206 02:12:54 | 58.66 | 30527 | | | | |
| 206 03:57:49 | 32.30 | 30528 | | | | |
| 206 05:42:44 | 5.95 | 30529 | | | | |
| 206 07:27:39 | -20.40 | 30530 | | | | |
| 206 09:12:34 | -46.76 | 30531 | | | | |
| 206 10:57:29 | -73.11 | 30532 | | | | |
| 206 12:42:23 | -99.47 | 30533 | | | | |
| 206 14:27:18 | -125.82 | 30534 | | | | |
| 206 16:12:13 | -152.17 | 30535 | | | | |
| 206 17:57:08 | -178.53 | 30536 | | | | |
| 206 19:42:03 | 155.12 | 30537 | | | | |
| 206 21:26:58 | 129.76 | 30538 | | | | |
| 206 23:11:52 | 102.41 | 30539 | | | | |
| 206 01:15:53 | -64.33 | 5292 | | | | |
| 206 03:00:46 | -90.68 | 5293 | | | | |
| 206 04:45:40 | -117.03 | 5294 | | | | |
| 206 06:30:34 | -143.38 | 5295 | | | | |
| 206 08:15:27 | -169.73 | 5296 | | | | |
| 206 10:00:21 | 163.92 | 5297 | | | | |
| 206 11:45:15 | 137.57 | 5298 | | | | |
| 206 13:30:09 | 111.23 | 5299 | | | | |
| 206 15:15:02 | 84.87 | 5300 | | | | |
| 206 16:59:56 | 58.53 | 5301 | | | | |
| 206 18:44:50 | 32.18 | 5302 | | | | |
| 206 20:29:44 | 5.83 | 5303 | | | | |
| 206 22:14:37 | -20.52 | 5304 | | | | |
| 206 23:59:31 | -46.87 | 5305 | | | | |

| | | | | | | |
|--------------|---------|-------|--|--|--|--|
| 207 00:56:47 | 76.05 | 30540 | | | | |
| 207 02:41:42 | 49.70 | 30541 | | | | |
| 207 04:26:37 | 23.35 | 30542 | | | | |
| 207 06:11:32 | -3.01 | 30543 | | | | |
| 207 07:56:27 | -29.36 | 30544 | | | | |
| 207 09:41:22 | -55.71 | 30545 | | | | |
| 207 11:26:16 | -82.07 | 30546 | | | | |
| 207 13:11:11 | -108.42 | 30547 | | | | |
| 207 14:56:06 | -134.78 | 30548 | | | | |
| 207 16:41:01 | -161.13 | 30549 | | | | |
| 207 18:25:56 | 172.52 | 30550 | | | | |
| 207 20:10:51 | 146.16 | 30551 | | | | |
| 207 21:55:45 | 119.81 | 30552 | | | | |
| 207 23:40:40 | 93.49 | 30553 | | | | |
| 207 01:44:25 | -73.22 | 5306 | | | | |
| 207 03:29:19 | -99.57 | 5307 | | | | |
| 207 05:14:12 | -125.92 | 5308 | | | | |
| 207 06:59:06 | -152.27 | 5309 | | | | |
| 207 08:44:00 | -178.62 | 5310 | | | | |
| 207 10:28:54 | 155.03 | 5311 | | | | |
| 207 12:13:47 | 128.68 | 5312 | | | | |
| 207 13:58:41 | 102.33 | 5313 | | | | |
| 207 15:43:35 | 75.98 | 5314 | | | | |
| 207 17:28:29 | 49.64 | 5315 | | | | |
| 207 19:13:22 | 23.28 | 5316 | | | | |
| 207 20:58:16 | -3.06 | 5317 | | | | |
| 207 22:43:10 | -29.41 | 5318 | | | | |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG** **ORBIT**
day hr mn sc **deg dg**

204 01:07:39 -112.87 28905
 204 02:49:39 -138.36 28906
 204 04:31:40 -163.87 28907
 204 06:13:40 170.64 28908
 204 07:55:41 145.13 28909
 204 09:37:41 119.64 28910
 204 11:19:42 94.14 28911
 204 13:01:42 68.64 28912
 204 14:43:43 43.14 28913
 204 16:25:43 17.64 28914
 204 18:07:44 -7.86 28915
 204 19:49:44 -33.36 28916
 204 21:31:45 -58.86 28917
 204 23:13:45 -84.35 28918

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG** **ORBIT**
day hr mn sc **deg dg**

204 01:30:00 -91.77 19970
 204 03:11:13 -117.07 19971
 204 04:52:27 -142.39 19972
 204 06:33:40 -167.69 19973
 204 08:14:53 167.01 19974
 204 09:56:06 141.70 19975
 204 11:37:19 116.40 19976
 204 13:18:33 91.08 19977
 204 14:59:46 65.78 19978
 204 16:40:59 40.48 19979
 204 18:22:12 15.17 19980
 204 20:03:25 -10.13 19981
 204 21:44:39 -35.44 19982
 204 23:25:52 -60.75 19983

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG** **ORBIT**
day hr mn sc **deg dg**

204 01:05:05 -164.61 9402
 204 02:47:10 169.87 9403
 204 04:29:15 144.35 9404
 204 06:11:19 118.84 9405
 204 07:53:24 93.32 9406
 204 09:35:29 67.80 9407
 204 11:17:34 42.28 9408
 204 12:59:39 16.75 9409
 204 14:41:43 -8.75 9410
 204 16:23:48 -34.28 9411
 204 18:05:53 -59.80 9412
 204 19:47:58 -85.32 9413
 204 21:30:02 -110.83 9414
 204 23:12:07 -136.35 9415

205 00:55:46 -109.86 28919
 205 02:37:46 -135.35 28920
 205 04:19:47 -160.86 28921
 205 06:01:47 173.65 28922
 205 07:43:48 148.14 28923
 205 09:25:48 122.65 28924
 205 11:07:49 97.14 28925
 205 12:49:49 71.65 28926
 205 14:31:50 46.14 28927
 205 16:13:50 20.65 28928
 205 17:55:51 -4.86 28929
 205 19:37:51 -30.35 28930
 205 21:19:52 -55.85 28931
 205 23:01:52 -81.35 28932

205 01:07:05 -86.05 19984
 205 02:48:18 -111.35 19985
 205 04:29:31 -136.66 19986
 205 06:10:45 -161.97 19987
 205 07:51:58 172.73 19988
 205 09:33:11 147.42 19989
 205 11:14:24 122.12 19990
 205 12:55:37 96.82 19991
 205 14:36:51 71.50 19992
 205 16:18:04 46.20 19993
 205 17:59:17 20.90 19994
 205 19:40:30 -4.41 19995
 205 21:21:43 -29.71 19996
 205 23:02:57 -55.03 19997

205 00:54:12 -161.87 9416
 205 02:36:17 172.61 9417
 205 04:18:22 147.08 9418
 205 06:00:26 121.58 9419
 205 07:42:31 96.05 9420
 205 09:24:36 70.53 9421
 205 11:06:41 45.01 9422
 205 12:48:46 19.49 9423
 205 14:30:50 -6.02 9424
 205 16:12:55 -31.54 9425
 205 17:55:00 -57.06 9426
 205 19:37:05 -82.59 9427
 205 21:19:10 -108.11 9428
 205 23:01:14 -133.62 9429

206 00:43:53 -106.85 28933
 206 02:25:53 -132.35 28934
 206 04:07:54 -157.85 28935
 206 05:49:54 176.65 28936
 206 07:31:55 151.15 28937
 206 09:13:55 125.66 28938
 206 10:55:56 100.15 28939
 206 12:37:56 74.66 28940
 206 14:19:57 49.15 28941
 206 16:01:57 23.66 28942
 206 17:43:58 -1.85 28943
 206 19:25:58 -27.34 28944
 206 21:07:59 -52.85 28945
 206 22:49:59 -78.34 28946

206 00:44:10 -80.33 19998
 206 02:25:23 -105.63 19999
 206 04:06:36 -130.94 20000
 206 05:47:49 -156.24 20001
 206 07:29:03 178.45 20002
 206 09:10:16 153.14 20003
 206 10:51:29 127.84 20004
 206 12:32:42 102.54 20005
 206 14:13:55 77.23 20006
 206 15:55:09 51.92 20007
 206 17:36:22 26.62 20008
 206 19:17:35 1.31 20009
 206 20:58:48 -23.99 20010
 206 22:40:01 -49.29 20011

206 00:43:19 -159.14 9430
 206 02:25:24 175.34 9431
 206 04:07:29 149.82 9432
 206 05:49:33 124.31 9433
 206 07:31:38 98.79 9434
 206 09:13:43 73.27 9435
 206 10:55:48 47.74 9436
 206 12:37:53 22.22 9437
 206 14:19:57 -3.29 9438
 206 16:02:02 -28.81 9439
 206 17:44:07 -54.33 9440
 206 19:26:12 -79.85 9441
 206 21:08:17 -105.37 9442
 206 22:50:21 -130.88 9443

207 00:32:00 -103.85 28947
 207 02:14:00 -129.34 28948
 207 03:56:01 -154.85 28949
 207 05:38:01 179.66 28950
 207 07:20:02 154.15 28951
 207 09:02:02 128.66 28952
 207 10:44:03 103.16 28953
 207 12:26:03 77.66 28954
 207 14:08:04 52.16 28955
 207 15:50:04 26.66 28956
 207 17:32:05 1.16 28957
 207 19:14:05 -24.33 28958
 207 20:56:06 -49.84 28959
 207 22:38:06 -75.33 28960

207 00:21:15 -74.61 20012
 207 02:02:28 -99.91 20013
 207 03:43:41 -125.22 20014
 207 05:24:54 -150.52 20015
 207 07:06:07 -175.82 20016
 207 08:47:21 158.86 20017
 207 10:28:34 133.56 20018
 207 12:09:47 108.26 20019
 207 13:51:00 82.95 20020
 207 15:32:13 57.65 20021
 207 17:13:27 32.34 20022
 207 18:54:40 7.03 20023
 207 20:35:53 -18.27 20024
 207 22:17:06 -43.57 20025
 207 23:58:19 -68.88 20026

207 00:32:26 -156.40 9444
 207 02:14:31 178.08 9445
 207 03:56:36 152.55 9446
 207 05:38:41 127.03 9447
 207 07:20:45 101.52 9448
 207 09:02:50 76.00 9449
 207 10:44:55 50.48 9450
 207 12:27:00 24.96 9451
 207 14:09:04 -5.55 9452
 207 15:51:09 -26.07 9453
 207 17:33:14 -51.59 9454
 207 19:15:19 -77.12 9455
 207 20:57:24 -102.64 9456
 207 22:39:28 -128.15 9457

| SATELLITE C3 | | | | | | SATELLITE C4 | | | | | |
|----------------------------|----------|--------|----------------------------|---------|-------|-------------------------|----------|-----|----|-----|----------|
| Ascending Node Predictions | | | Ascending Node Predictions | | | | | | | | |
| Predicting for 186 days | | | | | | Predicting for 184 days | | | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | day | hr mn sc | deg | dg | day | hr mn sc |
| day | hr mn sc | deg dg | deg | dg | | deg | deg dg | | | deg | deg dg |
| 208 01:25:35 | 67.10 | 30554 | 208 00:28:04 | -55.76 | 5319 | | | | | | |
| 208 03:10:30 | 40.75 | 30555 | 208 02:12:57 | -82.11 | 5320 | | | | | | |
| 208 04:55:25 | 14.39 | 30556 | 208 03:57:51 | -108.46 | 5321 | | | | | | |
| 208 06:40:20 | -11.96 | 30557 | 208 05:42:45 | -134.81 | 5322 | | | | | | |
| 208 08:25:14 | -38.32 | 30558 | 208 07:27:39 | -161.16 | 5323 | | | | | | |
| 208 10:10:09 | -64.67 | 30559 | 208 09:12:32 | 172.49 | 5324 | | | | | | |
| 208 11:55:04 | -91.03 | 30560 | 208 10:57:26 | 146.14 | 5325 | | | | | | |
| 208 13:39:59 | -117.38 | 30561 | 208 12:42:20 | 119.79 | 5326 | | | | | | |
| 208 15:24:54 | -143.73 | 30562 | 208 14:27:14 | 93.44 | 5327 | | | | | | |
| 208 17:09:49 | -170.09 | 30563 | 208 16:12:07 | 67.09 | 5328 | | | | | | |
| 208 18:54:44 | 163.56 | 30564 | 208 17:57:01 | 40.74 | 5329 | | | | | | |
| 208 20:39:38 | 137.20 | 30565 | 208 19:41:55 | 14.39 | 5330 | | | | | | |
| 208 22:24:33 | 110.85 | 30566 | 208 21:26:48 | -11.96 | 5331 | | | | | | |
| | | | 208 23:11:42 | -38.31 | 5332 | | | | | | |
| 209 00:09:28 | 84.50 | 30567 | 209 00:56:36 | -64.65 | 5333 | | | | | | |
| 209 01:54:23 | 58.14 | 30568 | 209 02:41:30 | -91.00 | 5334 | | | | | | |
| 209 03:39:18 | 31.79 | 30569 | 209 04:26:23 | -117.35 | 5335 | | | | | | |
| 209 05:24:13 | 5.44 | 30570 | 209 06:11:17 | -143.70 | 5336 | | | | | | |
| 209 07:09:07 | -20.92 | 30571 | 209 07:56:11 | -170.05 | 5337 | | | | | | |
| 209 08:54:02 | -47.27 | 30572 | 209 09:41:05 | 163.60 | 5338 | | | | | | |
| 209 10:38:57 | -73.63 | 30573 | 209 11:25:58 | 137.25 | 5339 | | | | | | |
| 209 12:23:52 | -99.98 | 30574 | 209 13:10:52 | 110.90 | 5340 | | | | | | |
| 209 14:08:47 | -126.33 | 30575 | 209 14:55:46 | 84.55 | 5341 | | | | | | |
| 209 15:53:42 | -152.69 | 30576 | 209 16:40:40 | 58.20 | 5342 | | | | | | |
| 209 17:38:37 | -179.04 | 30577 | 209 18:25:33 | 31.85 | 5343 | | | | | | |
| 209 19:23:31 | 154.60 | 30578 | 209 20:10:27 | 5.50 | 5344 | | | | | | |
| 209 21:08:26 | 128.25 | 30579 | 209 21:55:21 | -20.85 | 5345 | | | | | | |
| 209 22:53:21 | 101.89 | 30580 | 209 23:40:15 | -47.20 | 5346 | | | | | | |
| 210 00:38:16 | 75.34 | 30581 | 210 01:25:08 | -73.55 | 5347 | | | | | | |
| 210 02:23:11 | 49.19 | 30582 | 210 03:10:02 | -99.90 | 5348 | | | | | | |
| 210 04:08:06 | 22.83 | 30583 | 210 04:54:56 | -126.24 | 5349 | | | | | | |
| 210 05:53:01 | -3.52 | 30584 | 210 06:39:50 | -152.59 | 5350 | | | | | | |
| 210 07:37:55 | -29.88 | 30585 | 210 08:24:43 | -178.94 | 5351 | | | | | | |
| 210 09:22:50 | -56.23 | 30586 | 210 10:09:37 | 154.71 | 5352 | | | | | | |
| 210 11:07:45 | -82.58 | 30587 | 210 11:54:31 | 128.36 | 5353 | | | | | | |
| 210 12:52:40 | -108.94 | 30588 | 210 13:39:25 | 102.01 | 5354 | | | | | | |
| 210 14:37:35 | -135.29 | 30589 | 210 15:24:18 | 75.66 | 5355 | | | | | | |
| 210 16:22:30 | -161.64 | 30590 | 210 17:09:12 | 49.31 | 5356 | | | | | | |
| 210 18:07:24 | 172.00 | 30591 | 210 18:54:06 | 22.96 | 5357 | | | | | | |
| 210 19:52:19 | 145.65 | 30592 | 210 20:39:00 | -3.39 | 5358 | | | | | | |
| 210 21:37:14 | 119.29 | 30593 | 210 22:23:53 | -29.74 | 5359 | | | | | | |
| 210 23:22:09 | 92.94 | 30594 | | | | | | | | | |
| 211 01:07:04 | 66.59 | 30595 | 211 00:08:47 | -56.09 | 5360 | | | | | | |
| 211 02:51:59 | 40.23 | 30596 | 211 01:53:41 | -82.44 | 5361 | | | | | | |
| 211 04:36:54 | 13.88 | 30597 | 211 03:38:35 | -108.79 | 5362 | | | | | | |
| 211 06:21:48 | -12.48 | 30598 | 211 05:23:28 | -135.14 | 5363 | | | | | | |
| 211 08:06:43 | -38.83 | 30599 | 211 07:08:22 | -161.49 | 5364 | | | | | | |
| 211 09:51:38 | -65.19 | 30600 | 211 08:53:16 | 172.16 | 5365 | | | | | | |
| 211 11:36:33 | -91.54 | 30601 | 211 10:38:10 | 145.82 | 5366 | | | | | | |
| 211 13:21:28 | -117.89 | 30602 | 211 12:23:03 | 119.46 | 5367 | | | | | | |
| 211 15:06:23 | -144.25 | 30603 | 211 14:07:57 | 93.12 | 5368 | | | | | | |
| 211 16:51:17 | -170.60 | 30604 | 211 15:52:51 | 66.77 | 5369 | | | | | | |
| 211 18:36:12 | 163.04 | 30605 | 211 17:37:45 | 40.42 | 5370 | | | | | | |
| 211 20:21:07 | 136.69 | 30606 | 211 19:22:38 | 14.07 | 5371 | | | | | | |
| 211 22:06:02 | 110.34 | 30607 | 211 21:07:32 | -12.28 | 5372 | | | | | | |
| 211 23:50:57 | 83.98 | 30608 | 211 22:52:26 | -38.63 | 5373 | | | | | | |

West longitude is negative (-)

SATELLITE S2**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 208 00:20:07 | -100.84 | 28961 |
| 208 02:02:07 | -126.33 | 28962 |
| 208 03:44:08 | -151.84 | 28963 |
| 208 05:26:08 | -177.33 | 28964 |
| 208 07:08:09 | 157.16 | 28965 |
| 208 08:50:09 | 131.67 | 28966 |
| 208 10:32:10 | 106.16 | 28967 |
| 208 12:14:10 | 80.67 | 28968 |
| 208 13:56:11 | 55.16 | 28969 |
| 208 15:38:11 | 29.67 | 28970 |
| 208 17:20:12 | 4.16 | 28971 |
| 208 19:02:12 | -21.33 | 28972 |
| 208 20:44:13 | -46.83 | 28973 |
| 208 22:26:13 | -72.33 | 28974 |

SATELLITE S3**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 208 01:39:33 | -94.19 | 20027 |
| 208 03:20:46 | -119.49 | 20028 |
| 208 05:01:59 | -144.80 | 20029 |
| 208 06:43:12 | -170.10 | 20030 |
| 208 08:24:25 | 164.60 | 20031 |
| 208 10:05:39 | 139.28 | 20032 |
| 208 11:46:52 | 113.98 | 20033 |
| 208 13:28:05 | 88.67 | 20034 |
| 208 15:09:18 | 63.37 | 20035 |
| 208 16:50:31 | 38.07 | 20036 |
| 208 18:31:45 | 12.75 | 20037 |
| 208 20:12:58 | -12.55 | 20038 |
| 208 21:54:11 | -37.85 | 20039 |
| 208 23:35:24 | -63.16 | 20040 |

SATELLITE S4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 208 00:21:33 | -153.67 | 9458 |
| 208 02:03:38 | -179.19 | 9459 |
| 208 03:45:43 | 155.29 | 9460 |
| 208 05:27:48 | 129.77 | 9461 |
| 208 07:09:52 | 104.26 | 9462 |
| 208 08:51:57 | 78.74 | 9463 |
| 208 10:34:02 | 53.21 | 9464 |
| 208 12:16:07 | 27.69 | 9465 |
| 208 13:58:12 | 2.17 | 9466 |
| 208 15:40:16 | -23.34 | 9467 |
| 208 17:22:21 | -48.86 | 9468 |
| 208 19:04:26 | -74.38 | 9469 |
| 208 20:46:31 | -99.90 | 9470 |
| 208 22:28:35 | -125.41 | 9471 |

| | | |
|--------------|---------|-------|
| 209 00:08:14 | -97.83 | 28975 |
| 209 01:50:14 | -123.33 | 28976 |
| 209 03:32:15 | -148.83 | 28977 |
| 209 05:14:15 | -174.32 | 28978 |
| 209 06:56:16 | 160.17 | 28979 |
| 209 08:38:16 | 134.68 | 28980 |
| 209 10:20:17 | 109.17 | 28981 |
| 209 12:02:17 | 83.68 | 28982 |
| 209 13:44:18 | 58.17 | 28983 |
| 209 15:26:18 | 32.68 | 28984 |
| 209 17:08:19 | 7.17 | 28985 |
| 209 18:50:19 | -18.32 | 28986 |
| 209 20:32:20 | -43.83 | 28987 |
| 209 22:14:20 | -69.32 | 28988 |
| 209 23:56:21 | -94.83 | 28989 |

| | | |
|--------------|---------|-------|
| 209 01:16:37 | -88.46 | 20041 |
| 209 02:57:51 | -113.77 | 20042 |
| 209 04:39:04 | -139.08 | 20043 |
| 209 06:20:17 | -164.38 | 20044 |
| 209 08:01:30 | 170.32 | 20045 |
| 209 09:42:43 | 145.01 | 20046 |
| 209 11:23:57 | 119.70 | 20047 |
| 209 13:05:10 | 94.39 | 20048 |
| 209 14:46:23 | 69.09 | 20049 |
| 209 16:27:36 | 43.79 | 20050 |
| 209 18:08:49 | 18.49 | 20051 |
| 209 19:50:03 | -6.83 | 20052 |
| 209 21:31:16 | -32.13 | 20053 |
| 209 23:12:29 | -57.44 | 20054 |

| | | |
|--------------|---------|------|
| 209 00:10:40 | -150.93 | 9472 |
| 209 01:52:45 | -176.46 | 9473 |
| 209 03:34:50 | 158.02 | 9474 |
| 209 05:16:55 | 132.50 | 9475 |
| 209 06:58:59 | 106.99 | 9476 |
| 209 08:41:04 | 81.47 | 9477 |
| 209 10:23:09 | 55.95 | 9478 |
| 209 12:05:14 | 30.43 | 9479 |
| 209 13:47:19 | 4.91 | 9480 |
| 209 15:29:23 | -20.60 | 9481 |
| 209 17:11:28 | -46.12 | 9482 |
| 209 18:53:33 | -71.65 | 9483 |
| 209 20:35:38 | -97.17 | 9484 |
| 209 22:17:43 | -122.69 | 9485 |
| 209 23:59:47 | -148.20 | 9486 |

| | | |
|--------------|---------|-------|
| 210 01:38:21 | -120.32 | 28990 |
| 210 03:20:22 | -145.83 | 28991 |
| 210 05:02:22 | -171.32 | 28992 |
| 210 06:44:23 | 163.18 | 28993 |
| 210 08:26:23 | 137.68 | 28994 |
| 210 10:08:24 | 112.18 | 28995 |
| 210 11:50:24 | 86.68 | 28996 |
| 210 13:32:25 | 61.18 | 28997 |
| 210 15:14:25 | 35.69 | 28998 |
| 210 16:56:26 | 10.18 | 28999 |
| 210 18:38:26 | -15.31 | 29000 |
| 210 20:20:27 | -40.82 | 29001 |
| 210 22:02:27 | -66.31 | 29002 |
| 210 23:44:28 | -91.82 | 29003 |

| | | |
|--------------|---------|-------|
| 210 00:53:42 | -82.74 | 20055 |
| 210 02:34:55 | -108.04 | 20056 |
| 210 04:16:09 | -133.36 | 20057 |
| 210 05:57:22 | -158.66 | 20058 |
| 210 07:38:35 | 176.04 | 20059 |
| 210 09:19:48 | 150.73 | 20060 |
| 210 11:01:01 | 125.43 | 20061 |
| 210 12:42:15 | 100.12 | 20062 |
| 210 14:23:28 | 74.81 | 20063 |
| 210 16:04:41 | 49.51 | 20064 |
| 210 17:45:54 | 24.21 | 20065 |
| 210 19:27:07 | -1.10 | 20066 |
| 210 21:08:21 | -26.41 | 20067 |
| 210 22:49:34 | -51.72 | 20068 |

| | | |
|--------------|---------|------|
| 210 01:41:52 | -173.72 | 9487 |
| 210 03:23:57 | 160.76 | 9488 |
| 210 05:06:02 | 135.24 | 9489 |
| 210 06:48:07 | 109.71 | 9490 |
| 210 08:30:11 | 84.21 | 9491 |
| 210 10:12:16 | 58.68 | 9492 |
| 210 11:54:21 | 33.16 | 9493 |
| 210 13:36:26 | 7.64 | 9494 |
| 210 15:18:30 | -17.87 | 9495 |
| 210 17:00:35 | -43.39 | 9496 |
| 210 18:42:40 | -68.91 | 9497 |
| 210 20:24:45 | -94.43 | 9498 |
| 210 22:06:50 | -119.96 | 9499 |
| 210 23:48:54 | -145.46 | 9500 |

| | | |
|--------------|---------|-------|
| 211 01:26:28 | -117.31 | 29004 |
| 211 03:08:29 | -142.82 | 29005 |
| 211 04:50:29 | -168.31 | 29006 |
| 211 06:32:30 | 166.18 | 29007 |
| 211 08:14:30 | 140.69 | 29008 |
| 211 09:56:31 | 115.18 | 29009 |
| 211 11:38:31 | 89.69 | 29010 |
| 211 13:20:32 | 64.18 | 29011 |
| 211 15:02:32 | 38.69 | 29012 |
| 211 16:44:33 | 13.19 | 29013 |
| 211 18:26:33 | -12.31 | 29014 |
| 211 20:08:34 | -37.81 | 29015 |
| 211 21:50:34 | -63.31 | 29016 |
| 211 23:32:35 | -88.81 | 29017 |

| | | |
|--------------|---------|-------|
| 211 00:30:47 | -77.02 | 20069 |
| 211 02:12:00 | -102.32 | 20070 |
| 211 03:53:13 | -127.62 | 20071 |
| 211 05:34:27 | -152.94 | 20072 |
| 211 07:15:40 | -178.24 | 20073 |
| 211 08:56:53 | 156.45 | 20074 |
| 211 10:38:06 | 131.15 | 20075 |
| 211 12:19:19 | 105.85 | 20076 |
| 211 14:00:33 | 80.53 | 20077 |
| 211 15:41:46 | 55.23 | 20078 |
| 211 17:22:59 | 29.93 | 20079 |
| 211 19:04:12 | 4.62 | 20080 |
| 211 20:45:25 | -20.68 | 20081 |
| 211 22:26:39 | -46.00 | 20082 |

| | | |
|--------------|---------|------|
| 211 01:30:59 | -170.99 | 9501 |
| 211 03:13:04 | 163.49 | 9502 |
| 211 04:55:09 | 137.97 | 9503 |
| 211 06:37:14 | 112.45 | 9504 |
| 211 08:19:18 | 86.94 | 9505 |
| 211 10:01:23 | 61.42 | 9506 |
| 211 11:43:28 | 35.90 | 9507 |
| 211 13:25:33 | 10.38 | 9508 |
| 211 15:07:38 | -15.15 | 9509 |
| 211 16:49:42 | -40.66 | 9510 |
| 211 18:31:47 | -66.18 | 9511 |
| 211 20:13:52 | -91.70 | 9512 |
| 211 21:55:57 | -117.22 | 9513 |
| 211 23:38:01 | -142.73 | 9514 |

SATELLITE C3
Ascending Node Predictions

Predicting for 186 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 212 01:35:52 | 57.63 | 30609 |
| 212 03:20:47 | 31.28 | 30610 |
| 212 05:05:41 | 4.92 | 30611 |
| 212 06:50:36 | -21.43 | 30612 |
| 212 08:35:31 | -47.79 | 30613 |
| 212 10:20:26 | -74.14 | 30614 |
| 212 12:05:21 | -100.50 | 30615 |
| 212 13:50:16 | -126.85 | 30616 |
| 212 15:35:10 | -153.21 | 30617 |
| 212 17:20:05 | -179.56 | 30618 |
| 212 19:05:00 | 154.09 | 30619 |
| 212 20:49:55 | 127.73 | 30620 |
| 212 22:34:50 | 101.38 | 30621 |

SATELLITE C4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 212 00:37:20 | -64.98 | 5374 |
| 212 02:22:13 | -91.33 | 5375 |
| 212 04:07:07 | -117.68 | 5376 |
| 212 05:52:01 | -144.03 | 5377 |
| 212 07:36:55 | -170.38 | 5378 |
| 212 09:21:48 | 163.27 | 5379 |
| 212 11:06:42 | 136.92 | 5380 |
| 212 12:51:36 | 110.57 | 5381 |
| 212 14:36:30 | 84.23 | 5382 |
| 212 16:21:23 | 57.87 | 5383 |
| 212 18:06:17 | 31.53 | 5384 |
| 212 19:51:11 | 5.18 | 5385 |
| 212 21:36:05 | -21.17 | 5386 |
| 212 23:20:58 | -47.52 | 5387 |

| | | |
|--------------|---------|-------|
| 213 00:19:45 | 75.03 | 30622 |
| 213 02:04:40 | 48.67 | 30623 |
| 213 03:49:34 | 22.32 | 30624 |
| 213 05:34:29 | -4.04 | 30625 |
| 213 07:19:24 | -30.39 | 30626 |
| 213 09:04:19 | -56.74 | 30627 |
| 213 10:49:14 | -83.10 | 30628 |
| 213 12:34:09 | -109.45 | 30629 |
| 213 14:19:03 | -135.81 | 30630 |
| 213 16:03:58 | -162.16 | 30631 |
| 213 17:48:53 | 171.49 | 30632 |
| 213 19:33:48 | 145.13 | 30633 |
| 213 21:18:43 | 118.78 | 30634 |
| 213 23:03:38 | 92.42 | 30635 |

| | | |
|--------------|---------|------|
| 213 01:05:52 | -73.87 | 5388 |
| 213 02:50:46 | -100.22 | 5389 |
| 213 04:35:40 | -126.57 | 5390 |
| 213 06:20:33 | -152.92 | 5391 |
| 213 08:05:27 | -179.27 | 5392 |
| 213 09:50:21 | 154.38 | 5393 |
| 213 11:35:15 | 129.03 | 5394 |
| 213 13:20:08 | 101.68 | 5395 |
| 213 15:05:02 | 75.33 | 5396 |
| 213 16:49:56 | 48.98 | 5397 |
| 213 18:34:50 | 22.63 | 5398 |
| 213 20:19:43 | -3.72 | 5399 |
| 213 22:04:37 | -30.07 | 5400 |
| 213 23:49:31 | -56.41 | 5401 |

| | | |
|--------------|---------|-------|
| 214 00:48:33 | 66.07 | 30636 |
| 214 02:33:27 | 39.71 | 30637 |
| 214 04:18:22 | 13.36 | 30638 |
| 214 06:03:17 | -12.99 | 30639 |
| 214 07:48:12 | -39.35 | 30640 |
| 214 09:33:07 | -65.70 | 30641 |
| 214 11:18:02 | -92.05 | 30642 |
| 214 13:02:57 | -118.41 | 30643 |
| 214 14:47:51 | -144.76 | 30644 |
| 214 16:32:46 | -171.12 | 30645 |
| 214 18:17:41 | 162.53 | 30646 |
| 214 20:02:36 | 136.18 | 30647 |
| 214 21:47:31 | 109.82 | 30648 |
| 214 23:32:26 | 83.47 | 30649 |

| | | |
|--------------|---------|------|
| 214 01:34:25 | -82.76 | 5402 |
| 214 03:19:18 | -109.11 | 5403 |
| 214 05:04:12 | -135.46 | 5404 |
| 214 06:49:06 | -161.81 | 5405 |
| 214 08:34:00 | 171.84 | 5406 |
| 214 10:18:53 | 145.49 | 5407 |
| 214 12:03:47 | 119.14 | 5408 |
| 214 13:48:41 | 92.79 | 5409 |
| 214 15:33:35 | 66.44 | 5410 |
| 214 17:18:28 | 40.09 | 5411 |
| 214 19:03:22 | 13.74 | 5412 |
| 214 20:48:16 | -12.61 | 5413 |
| 214 22:33:10 | -38.96 | 5414 |

| | | |
|--------------|---------|-------|
| 215 01:17:20 | 57.11 | 30650 |
| 215 03:02:15 | 30.76 | 30651 |
| 215 04:47:10 | 4.40 | 30652 |
| 215 06:32:05 | -21.95 | 30653 |
| 215 08:17:00 | -48.30 | 30654 |
| 215 10:01:55 | -74.66 | 30655 |
| 215 11:46:50 | -101.01 | 30656 |
| 215 13:31:44 | -127.37 | 30657 |
| 215 15:16:39 | -153.72 | 30658 |
| 215 17:01:34 | 179.93 | 30659 |
| 215 18:46:29 | 153.57 | 30660 |
| 215 20:31:24 | 127.22 | 30661 |
| 215 22:16:19 | 100.87 | 30662 |

| | | |
|--------------|---------|------|
| 215 00:18:03 | -65.31 | 5415 |
| 215 02:02:57 | -91.66 | 5416 |
| 215 03:47:51 | -118.01 | 5417 |
| 215 05:32:45 | -144.35 | 5418 |
| 215 07:17:38 | -170.71 | 5419 |
| 215 09:02:32 | 162.95 | 5420 |
| 215 10:47:26 | 136.60 | 5421 |
| 215 12:32:20 | 110.25 | 5422 |
| 215 14:17:13 | 83.90 | 5423 |
| 215 16:02:07 | 57.55 | 5424 |
| 215 17:47:01 | 31.20 | 5425 |
| 215 19:31:55 | 4.85 | 5426 |
| 215 21:16:48 | -21.50 | 5427 |
| 215 23:01:42 | -47.85 | 5428 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG ORBIT**
day hr mn sc **deg dg**

| | | |
|--------------|---------|-------|
| 212 01:14:35 | -114.30 | 29018 |
| 212 02:56:36 | -139.81 | 29019 |
| 212 04:38:36 | -165.30 | 29020 |
| 212 06:20:37 | 169.19 | 29021 |
| 212 08:02:37 | 143.70 | 29022 |
| 212 09:44:38 | 118.19 | 29023 |
| 212 11:26:38 | 92.70 | 29024 |
| 212 13:08:39 | 67.19 | 29025 |
| 212 14:50:39 | 41.70 | 29026 |
| 212 16:32:40 | 16.19 | 29027 |
| 212 18:14:40 | -9.30 | 29028 |
| 212 19:56:41 | -34.81 | 29029 |
| 212 21:38:41 | -60.30 | 29030 |
| 212 23:20:42 | -85.80 | 29031 |

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG ORBIT**
day hr mn sc **deg dg**

| | | |
|--------------|---------|-------|
| 212 00:07:52 | -71.30 | 20083 |
| 212 01:49:05 | -96.60 | 20084 |
| 212 03:30:18 | -121.90 | 20085 |
| 212 05:11:31 | -147.21 | 20086 |
| 212 06:52:45 | -172.52 | 20087 |
| 212 08:33:58 | 162.17 | 20088 |
| 212 10:15:11 | 136.87 | 20089 |
| 212 11:56:24 | 111.57 | 20090 |
| 212 13:37:37 | 86.27 | 20091 |
| 212 15:18:51 | 60.95 | 20092 |
| 212 17:00:04 | 35.65 | 20093 |
| 212 18:41:17 | 10.34 | 20094 |
| 212 20:22:30 | -14.96 | 20095 |
| 212 22:03:43 | -40.26 | 20096 |
| 212 23:44:57 | -65.58 | 20097 |

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG ORBIT**
day hr mn sc **deg dg**

| | | |
|--------------|---------|------|
| 212 01:20:06 | -168.25 | 9515 |
| 212 03:02:11 | 166.23 | 9516 |
| 212 04:44:16 | 140.71 | 9517 |
| 212 06:26:21 | 115.18 | 9518 |
| 212 08:08:25 | 89.68 | 9519 |
| 212 09:50:30 | 64.15 | 9520 |
| 212 11:32:35 | 38.63 | 9521 |
| 212 13:14:40 | 13.11 | 9522 |
| 212 14:56:45 | -12.41 | 9523 |
| 212 16:38:49 | -37.92 | 9524 |
| 212 18:20:54 | -63.44 | 9525 |
| 212 20:02:59 | -88.96 | 9526 |
| 212 21:45:04 | -114.49 | 9527 |
| 212 23:27:09 | -140.01 | 9528 |

| | | |
|--------------|---------|-------|
| 213 01:02:42 | -111.30 | 29032 |
| 213 02:44:42 | -136.80 | 29033 |
| 213 04:26:43 | -162.30 | 29034 |
| 213 06:08:44 | 172.20 | 29035 |
| 213 07:50:44 | 146.70 | 29036 |
| 213 09:32:45 | 121.20 | 29037 |
| 213 11:14:45 | 95.71 | 29038 |
| 213 12:56:46 | 70.20 | 29039 |
| 213 14:38:46 | 44.71 | 29040 |
| 213 16:20:47 | 19.20 | 29041 |
| 213 18:02:47 | -6.29 | 29042 |
| 213 19:44:48 | -31.80 | 29043 |
| 213 21:26:48 | -57.29 | 29044 |
| 213 23:08:49 | -82.80 | 29045 |

| | | |
|--------------|---------|-------|
| 213 01:26:10 | -90.88 | 20098 |
| 213 03:07:23 | -116.18 | 20099 |
| 213 04:48:36 | -141.49 | 20100 |
| 213 06:29:49 | -166.79 | 20101 |
| 213 08:11:03 | 167.89 | 20102 |
| 213 09:52:16 | 142.59 | 20103 |
| 213 11:33:29 | 117.29 | 20104 |
| 213 13:14:42 | 91.99 | 20105 |
| 213 14:55:55 | 66.68 | 20106 |
| 213 16:37:09 | 41.37 | 20107 |
| 213 18:18:22 | 16.06 | 20108 |
| 213 19:59:35 | -9.24 | 20109 |
| 213 21:40:48 | -34.54 | 20110 |
| 213 23:22:01 | -59.85 | 20111 |

| | | |
|--------------|---------|------|
| 213 01:09:13 | -165.52 | 9529 |
| 213 02:51:18 | 168.96 | 9530 |
| 213 04:33:23 | 143.44 | 9531 |
| 213 06:15:28 | 117.92 | 9532 |
| 213 07:57:32 | 92.41 | 9533 |
| 213 09:39:37 | 66.89 | 9534 |
| 213 11:21:42 | 41.37 | 9535 |
| 213 13:03:47 | 15.84 | 9536 |
| 213 14:45:52 | -9.68 | 9537 |
| 213 16:27:56 | -35.19 | 9538 |
| 213 18:10:01 | -60.71 | 9539 |
| 213 19:52:06 | -86.23 | 9540 |
| 213 21:34:11 | -111.75 | 9541 |
| 213 23:16:16 | -137.27 | 9542 |

| | | |
|--------------|---------|-------|
| 214 00:50:49 | -108.29 | 29046 |
| 214 02:32:50 | -133.80 | 29047 |
| 214 04:14:50 | -159.29 | 29048 |
| 214 05:56:51 | 175.20 | 29049 |
| 214 07:38:51 | 149.71 | 29050 |
| 214 09:20:52 | 124.21 | 29051 |
| 214 11:02:52 | 98.71 | 29052 |
| 214 12:44:53 | 73.21 | 29053 |
| 214 14:26:53 | 47.71 | 29054 |
| 214 16:08:54 | 22.21 | 29055 |
| 214 17:50:54 | -3.29 | 29056 |
| 214 19:32:55 | -28.79 | 29057 |
| 214 21:14:55 | -54.28 | 29058 |
| 214 22:56:56 | -79.79 | 29059 |

| | | |
|--------------|---------|-------|
| 214 01:03:15 | -85.16 | 20112 |
| 214 02:44:28 | -110.46 | 20113 |
| 214 04:25:41 | -135.77 | 20114 |
| 214 06:06:54 | -161.07 | 20115 |
| 214 07:48:07 | 173.63 | 20116 |
| 214 09:29:21 | 148.31 | 20117 |
| 214 11:10:34 | 123.01 | 20118 |
| 214 12:51:47 | 97.71 | 20119 |
| 214 14:33:00 | 72.40 | 20120 |
| 214 16:14:13 | 47.10 | 20121 |
| 214 17:55:27 | 21.78 | 20122 |
| 214 19:36:40 | -3.52 | 20123 |
| 214 21:17:53 | -28.82 | 20124 |
| 214 22:59:06 | -54.13 | 20125 |

| | | |
|--------------|---------|------|
| 214 00:58:20 | -162.78 | 9543 |
| 214 02:40:25 | 171.70 | 9544 |
| 214 04:22:30 | 146.17 | 9545 |
| 214 06:04:35 | 120.65 | 9546 |
| 214 07:46:40 | 95.13 | 9547 |
| 214 09:28:44 | 69.62 | 9548 |
| 214 11:10:49 | 44.10 | 9549 |
| 214 12:52:54 | 18.58 | 9550 |
| 214 14:34:59 | -6.94 | 9551 |
| 214 16:17:03 | -32.45 | 9552 |
| 214 17:59:08 | -57.97 | 9553 |
| 214 19:41:13 | -83.49 | 9554 |
| 214 21:23:18 | -109.02 | 9555 |
| 214 23:05:23 | -134.54 | 9556 |

| | | |
|--------------|---------|-------|
| 215 00:38:56 | -105.28 | 29060 |
| 215 02:20:57 | -130.79 | 29061 |
| 215 04:02:57 | -156.28 | 29062 |
| 215 05:44:58 | 178.21 | 29063 |
| 215 07:26:58 | 152.72 | 29064 |
| 215 09:08:59 | 127.21 | 29065 |
| 215 10:50:59 | 101.72 | 29066 |
| 215 12:33:00 | 76.21 | 29067 |
| 215 14:15:00 | 50.72 | 29068 |
| 215 15:57:01 | 25.21 | 29069 |
| 215 17:39:01 | -28 | 29070 |
| 215 19:21:02 | -25.78 | 29071 |
| 215 21:03:02 | -51.28 | 29072 |
| 215 22:45:03 | -76.78 | 29073 |

| | | |
|--------------|---------|-------|
| 215 00:40:19 | -79.43 | 20126 |
| 215 02:21:33 | -104.74 | 20127 |
| 215 04:02:46 | -130.05 | 20128 |
| 215 05:43:59 | -155.35 | 20129 |
| 215 07:25:12 | 179.35 | 20130 |
| 215 09:06:25 | 154.04 | 20131 |
| 215 10:47:39 | 128.73 | 20132 |
| 215 12:28:52 | 103.43 | 20133 |
| 215 14:10:05 | 78.12 | 20134 |
| 215 15:51:18 | 52.82 | 20135 |
| 215 17:32:31 | 27.52 | 20136 |
| 215 19:13:45 | 2.20 | 20137 |
| 215 20:54:58 | -23.10 | 20138 |
| 215 22:36:11 | -48.41 | 20139 |

| | | |
|--------------|---------|------|
| 215 00:47:27 | -160.05 | 9557 |
| 215 02:29:32 | 174.43 | 9558 |
| 215 04:11:37 | 148.91 | 9559 |
| 215 05:53:42 | 123.39 | 9560 |
| 215 07:35:47 | 97.87 | 9561 |
| 215 09:17:51 | 72.36 | 9562 |
| 215 10:59:56 | 46.84 | 9563 |
| 215 12:42:01 | 21.31 | 9564 |
| 215 14:24:06 | -4.21 | 9565 |
| 215 16:06:10 | -29.72 | 9566 |
| 215 17:48:15 | -55.24 | 9567 |
| 215 19:30:20 | -80.76 | 9568 |
| 215 21:12:25 | -106.28 | 9569 |
| 215 22:54:30 | -131.80 | 9570 |

| SATELLITE C3 | | | | | |
|----------------------------|---------|-------|--|--|--|
| Ascending Node Predictions | | | | | |
| Predicting for 186 days | | | | | |
| TIME (GMT) | E LONG | ORBIT | | | |
| day hr mn sc | deg dg | | | | |
| 216 00:01:13 | 74.51 | 30663 | | | |
| 216 01:46:08 | 48.16 | 30664 | | | |
| 216 03:31:03 | 21.80 | 30665 | | | |
| 216 05:15:58 | -4.55 | 30666 | | | |
| 216 07:00:53 | -30.91 | 30667 | | | |
| 216 08:45:48 | -57.26 | 30668 | | | |
| 216 10:30:43 | -83.61 | 30669 | | | |
| 216 12:15:37 | -109.97 | 30670 | | | |
| 216 14:00:32 | -136.32 | 30671 | | | |
| 216 15:45:27 | -162.68 | 30672 | | | |
| 216 17:30:22 | 170.97 | 30673 | | | |
| 216 19:15:17 | 144.62 | 30674 | | | |
| 216 21:00:12 | 118.26 | 30675 | | | |
| 216 22:45:07 | 91.91 | 30676 | | | |

| | | |
|--------------|---------|-------|
| 216 00:01:13 | 74.51 | 30663 |
| 216 01:46:08 | 48.16 | 30664 |
| 216 03:31:03 | 21.80 | 30665 |
| 216 05:15:58 | -4.55 | 30666 |
| 216 07:00:53 | -30.91 | 30667 |
| 216 08:45:48 | -57.26 | 30668 |
| 216 10:30:43 | -83.61 | 30669 |
| 216 12:15:37 | -109.97 | 30670 |
| 216 14:00:32 | -136.32 | 30671 |
| 216 15:45:27 | -162.68 | 30672 |
| 216 17:30:22 | 170.97 | 30673 |
| 216 19:15:17 | 144.62 | 30674 |
| 216 21:00:12 | 118.26 | 30675 |
| 216 22:45:07 | 91.91 | 30676 |

| SATELLITE C4 | | | | | |
|----------------------------|---------|-------|--|--|--|
| Ascending Node Predictions | | | | | |
| Predicting for 184 days | | | | | |
| TIME (GMT) | E LONG | ORBIT | | | |
| day hr mn sc | deg dg | | | | |
| 216 00:46:36 | -74.20 | 5429 | | | |
| 216 02:31:30 | -100.55 | 5430 | | | |
| 216 04:16:23 | -126.90 | 5431 | | | |
| 216 06:01:17 | -153.25 | 5432 | | | |
| 216 07:46:11 | -179.60 | 5433 | | | |
| 216 09:31:05 | 154.05 | 5434 | | | |
| 216 11:15:58 | 127.70 | 5435 | | | |
| 216 13:00:52 | 101.35 | 5436 | | | |
| 216 14:45:46 | 75.01 | 5437 | | | |
| 216 16:30:40 | 48.66 | 5438 | | | |
| 216 18:15:33 | 22.31 | 5439 | | | |
| 216 20:00:27 | -4.04 | 5440 | | | |
| 216 21:45:21 | -30.39 | 5441 | | | |
| 216 23:30:15 | -56.74 | 5442 | | | |

| | | |
|--------------|---------|-------|
| 217 00:30:01 | 65.55 | 30677 |
| 217 02:14:56 | 39.20 | 30678 |
| 217 03:59:51 | 12.85 | 30679 |
| 217 05:44:46 | -13.51 | 30680 |
| 217 07:29:41 | -39.86 | 30681 |
| 217 09:14:36 | -66.22 | 30682 |
| 217 10:59:30 | -92.57 | 30683 |
| 217 12:44:25 | -118.93 | 30684 |
| 217 14:29:20 | -145.28 | 30685 |
| 217 16:14:15 | -171.63 | 30686 |
| 217 17:59:10 | 162.01 | 30687 |
| 217 19:44:05 | 135.66 | 30688 |
| 217 21:29:00 | 109.31 | 30689 |
| 217 23:13:54 | 82.95 | 30690 |

| | | |
|--------------|---------|------|
| 217 01:15:08 | -83.09 | 5443 |
| 217 03:00:02 | -109.44 | 5444 |
| 217 04:44:56 | -135.79 | 5445 |
| 217 06:29:50 | -162.14 | 5446 |
| 217 08:14:43 | 171.51 | 5447 |
| 217 09:59:37 | 145.16 | 5448 |
| 217 11:44:31 | 118.81 | 5449 |
| 217 13:29:25 | 92.46 | 5450 |
| 217 15:14:19 | 66.11 | 5451 |
| 217 16:59:12 | 39.76 | 5452 |
| 217 18:44:06 | 13.41 | 5453 |
| 217 20:29:00 | -12.93 | 5454 |
| 217 22:13:54 | -39.28 | 5455 |
| 217 23:58:47 | -65.64 | 5456 |

| | | |
|--------------|---------|-------|
| 218 00:58:49 | 56.60 | 30691 |
| 218 02:43:44 | 30.24 | 30692 |
| 218 04:28:39 | 3.89 | 30693 |
| 218 06:13:34 | -22.46 | 30694 |
| 218 07:58:29 | -48.82 | 30695 |
| 218 09:43:23 | -75.17 | 30696 |
| 218 11:28:18 | -101.53 | 30697 |
| 218 13:13:13 | -127.88 | 30698 |
| 218 14:58:08 | -154.23 | 30699 |
| 218 16:43:03 | 179.41 | 30700 |
| 218 18:27:58 | 153.06 | 30701 |
| 218 20:12:53 | 126.70 | 30702 |
| 218 21:57:47 | 100.35 | 30703 |
| 218 23:42:42 | 73.99 | 30704 |

| | | |
|--------------|---------|------|
| 218 01:43:41 | -91.98 | 5457 |
| 218 03:28:35 | -118.33 | 5458 |
| 218 05:13:29 | -144.68 | 5459 |
| 218 06:58:22 | -171.03 | 5460 |
| 218 08:43:16 | 162.62 | 5461 |
| 218 10:28:10 | 136.27 | 5462 |
| 218 12:13:04 | 109.92 | 5463 |
| 218 13:57:57 | 83.57 | 5464 |
| 218 15:42:51 | 57.22 | 5465 |
| 218 17:27:45 | 30.87 | 5466 |
| 218 19:12:39 | 4.52 | 5467 |
| 218 20:57:32 | -21.83 | 5468 |
| 218 22:42:26 | -48.18 | 5469 |

| | | |
|--------------|---------|-------|
| 219 01:27:37 | 47.64 | 30705 |
| 219 03:12:32 | 21.29 | 30706 |
| 219 04:57:27 | -5.07 | 30707 |
| 219 06:42:22 | -31.42 | 30708 |
| 219 08:27:17 | -57.77 | 30709 |
| 219 10:12:11 | -84.13 | 30710 |
| 219 11:57:06 | -110.48 | 30711 |
| 219 13:42:01 | -136.84 | 30712 |
| 219 15:26:56 | -163.19 | 30713 |
| 219 17:11:51 | 170.46 | 30714 |
| 219 18:56:46 | 144.10 | 30715 |
| 219 20:41:40 | 117.75 | 30716 |
| 219 22:26:35 | 91.39 | 30717 |

| | | |
|--------------|---------|------|
| 219 00:27:20 | -74.53 | 5470 |
| 219 02:12:14 | -100.88 | 5471 |
| 219 03:57:07 | -127.23 | 5472 |
| 219 05:42:01 | -153.58 | 5473 |
| 219 07:26:55 | -179.92 | 5474 |
| 219 09:11:49 | 153.73 | 5475 |
| 219 10:56:42 | 127.38 | 5476 |
| 219 12:41:36 | 101.03 | 5477 |
| 219 14:26:30 | 74.68 | 5478 |
| 219 16:11:24 | 48.33 | 5479 |
| 219 17:56:17 | 21.98 | 5480 |
| 219 19:41:11 | -4.37 | 5481 |
| 219 21:26:05 | -30.72 | 5482 |
| 219 23:10:59 | -57.07 | 5483 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|--|----------------------------|---------|-------|--|----------------------------|---------|-------|--|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E LONG | ORBIT | | TIME (GMT) | E LONG | ORBIT | | TIME (GMT) | E LONG | ORBIT | |
| day hr mn sc | deg dg | | | day hr mn sc | deg dg | | | day hr mn sc | deg dg | | |
| 216 00:27:03 | -102.28 | 29074 | | 216 00:17:24 | -73.71 | 20140 | | 216 00:36:34 | -157.31 | 9571 | |
| 216 02:09:04 | -127.78 | 29075 | | 216 01:58:37 | -99.01 | 20141 | | 216 02:18:39 | 177.17 | 9572 | |
| 216 03:51:04 | -153.27 | 29076 | | 216 03:39:51 | -124.33 | 20142 | | 216 04:00:44 | 151.64 | 9573 | |
| 216 05:33:05 | -178.78 | 29077 | | 216 05:21:04 | -149.63 | 20143 | | 216 05:42:49 | 126.12 | 9574 | |
| 216 07:15:05 | 155.73 | 29078 | | 216 07:02:17 | -174.93 | 20144 | | 216 07:24:54 | 100.60 | 9575 | |
| 216 08:57:06 | 130.22 | 29079 | | 216 08:43:30 | 159.76 | 20145 | | 216 09:06:58 | 75.09 | 9576 | |
| 216 10:39:06 | 104.73 | 29080 | | 216 10:24:43 | 134.46 | 20146 | | 216 10:49:03 | 49.57 | 9577 | |
| 216 12:21:07 | 79.22 | 29081 | | 216 12:05:56 | 109.16 | 20147 | | 216 12:31:08 | 24.05 | 9578 | |
| 216 14:03:07 | 53.73 | 29082 | | 216 13:47:10 | 83.84 | 20148 | | 216 14:13:13 | -1.47 | 9579 | |
| 216 15:45:08 | 28.22 | 29083 | | 216 15:28:23 | 58.54 | 20149 | | 216 15:55:18 | -27.00 | 9580 | |
| 216 17:27:09 | 2.72 | 29084 | | 216 17:09:36 | 33.24 | 20150 | | 216 17:37:22 | -52.50 | 9581 | |
| 216 19:09:09 | -22.78 | 29085 | | 216 18:50:49 | 7.93 | 20151 | | 216 19:19:27 | -78.03 | 9582 | |
| 216 20:51:10 | -48.28 | 29086 | | 216 20:32:02 | -17.37 | 20152 | | 216 21:01:32 | -103.55 | 9583 | |
| 216 22:33:10 | -73.78 | 29087 | | 216 22:13:16 | -42.69 | 20153 | | 216 22:43:37 | -129.07 | 9584 | |
| 216 23:54:29 | -67.99 | 20154 | | | | | | | | | |
| 217 00:15:11 | -99.28 | 29088 | | 217 01:35:42 | -93.29 | 20155 | | 217 00:25:41 | -154.58 | 9585 | |
| 217 01:57:11 | -124.77 | 29089 | | 217 03:16:55 | -118.59 | 20156 | | 217 02:07:46 | 179.90 | 9586 | |
| 217 03:39:12 | -150.28 | 29090 | | 217 04:58:08 | -143.90 | 20157 | | 217 03:49:51 | 154.38 | 9587 | |
| 217 05:21:12 | -175.77 | 29091 | | 217 06:39:22 | -169.21 | 20158 | | 217 05:31:56 | 128.86 | 9588 | |
| 217 07:03:13 | 158.72 | 29092 | | 217 08:20:35 | 165.48 | 20159 | | 217 07:14:01 | 103.33 | 9589 | |
| 217 08:45:13 | 133.23 | 29093 | | 217 10:01:48 | 140.18 | 20160 | | 217 08:56:05 | 77.83 | 9590 | |
| 217 10:27:14 | 107.72 | 29094 | | 217 11:43:01 | 114.88 | 20161 | | 217 10:38:10 | 52.30 | 9591 | |
| 217 12:09:14 | 82.23 | 29095 | | 217 13:24:14 | 89.58 | 20162 | | 217 12:20:15 | 26.78 | 9592 | |
| 217 13:51:15 | 56.72 | 29096 | | 217 15:05:28 | 64.26 | 20163 | | 217 14:02:20 | 1.26 | 9593 | |
| 217 15:33:15 | 31.23 | 29097 | | 217 16:46:41 | 38.96 | 20164 | | 217 15:44:25 | -24.26 | 9594 | |
| 217 17:15:16 | 5.72 | 29098 | | 217 18:27:54 | 13.65 | 20165 | | 217 17:26:29 | -49.77 | 9595 | |
| 217 18:57:16 | -19.77 | 29099 | | 217 20:09:07 | -11.65 | 20166 | | 217 19:08:34 | -75.29 | 9596 | |
| 217 20:39:17 | -45.28 | 29100 | | 217 21:50:20 | -36.95 | 20167 | | 217 20:50:39 | -100.81 | 9597 | |
| 217 22:21:17 | -70.77 | 29101 | | 217 23:31:34 | -62.27 | 20168 | | 217 22:32:44 | -126.33 | 9598 | |
| 218 00:03:18 | -96.27 | 29102 | | 218 01:12:47 | -87.57 | 20169 | | 218 00:14:49 | -151.86 | 9599 | |
| 218 01:45:18 | -121.77 | 29103 | | 218 02:54:00 | -112.87 | 20170 | | 218 01:56:53 | -177.36 | 9600 | |
| 218 03:27:19 | -147.27 | 29104 | | 218 04:35:13 | -138.18 | 20171 | | 218 03:38:58 | 157.11 | 9601 | |
| 218 05:09:19 | -172.77 | 29105 | | 218 06:16:26 | -163.48 | 20172 | | 218 05:21:03 | 131.59 | 9602 | |
| 218 06:51:20 | 161.73 | 29106 | | 218 07:57:40 | 171.20 | 20173 | | 218 07:03:08 | 106.07 | 9603 | |
| 218 08:33:20 | 136.23 | 29107 | | 218 09:38:53 | 145.90 | 20174 | | 218 08:45:12 | 80.56 | 9604 | |
| 218 10:15:21 | 110.73 | 29108 | | 218 11:20:06 | 120.60 | 20175 | | 218 10:27:17 | 55.04 | 9605 | |
| 218 11:57:21 | 85.24 | 29109 | | 218 13:01:19 | 95.30 | 20176 | | 218 12:09:22 | 29.52 | 9606 | |
| 218 13:39:22 | 59.73 | 29110 | | 218 14:42:32 | 69.99 | 20177 | | 218 13:51:27 | 4.00 | 9607 | |
| 218 15:21:22 | 34.24 | 29111 | | 218 16:23:46 | 44.68 | 20178 | | 218 15:33:32 | -21.53 | 9608 | |
| 218 17:03:23 | 8.73 | 29112 | | 218 18:04:59 | 19.37 | 20179 | | 218 17:15:36 | -47.03 | 9609 | |
| 218 18:45:23 | -16.76 | 29113 | | 218 19:46:12 | -5.93 | 20180 | | 218 18:57:41 | -72.56 | 9610 | |
| 218 20:27:24 | -42.27 | 29114 | | 218 21:27:25 | -31.23 | 20181 | | 218 20:39:46 | -98.08 | 9611 | |
| 218 22:09:24 | -67.76 | 29115 | | 218 23:08:38 | -56.54 | 20182 | | 218 22:21:51 | -123.60 | 9612 | |
| 218 23:51:25 | -93.27 | 29116 | | | | | | | | | |
| 219 01:33:25 | -118.76 | 29117 | | 219 00:49:52 | -81.85 | 20183 | | 219 00:03:56 | -149.12 | 9613 | |
| 219 03:15:26 | -144.27 | 29118 | | 219 02:31:05 | -107.15 | 20184 | | 219 01:46:00 | -174.63 | 9614 | |
| 219 04:57:26 | -169.76 | 29119 | | 219 04:12:18 | -132.46 | 20185 | | 219 03:28:05 | 159.85 | 9615 | |
| 219 06:39:27 | 164.74 | 29120 | | 219 05:53:31 | -157.76 | 20186 | | 219 05:10:10 | 134.33 | 9616 | |
| 219 08:21:27 | 139.24 | 29121 | | 219 07:34:44 | 176.94 | 20187 | | 219 06:52:15 | 108.80 | 9617 | |
| 219 10:03:28 | 113.74 | 29122 | | 219 09:15:58 | 151.62 | 20188 | | 219 08:34:20 | 83.28 | 9618 | |
| 219 11:45:28 | 88.24 | 29123 | | 219 10:57:11 | 126.32 | 20189 | | 219 10:16:24 | 57.77 | 9619 | |
| 219 13:27:29 | 62.74 | 29124 | | 219 12:38:24 | 101.01 | 20190 | | 219 11:58:29 | 32.25 | 9620 | |
| 219 15:09:29 | 37.24 | 29125 | | 219 14:19:37 | 75.71 | 20191 | | 219 13:40:34 | 6.73 | 9621 | |
| 219 16:51:30 | 11.74 | 29126 | | 219 16:00:50 | 50.41 | 20192 | | 219 15:22:39 | -18.79 | 9622 | |
| 219 18:33:30 | -13.75 | 29127 | | 219 17:42:04 | 25.09 | 20193 | | 219 17:04:43 | -44.30 | 9623 | |
| 219 20:15:31 | -39.26 | 29128 | | 219 19:23:17 | -21 | 20194 | | 219 18:46:48 | -69.82 | 9624 | |
| 219 21:57:31 | -64.75 | 29129 | | 219 21:04:30 | -25.51 | 20195 | | 219 20:28:53 | -95.34 | 9625 | |
| 219 23:39:32 | -90.26 | 29130 | | 219 22:45:43 | -50.82 | 20196 | | 219 22:10:58 | -120.87 | 9626 | |
| | | | | | | | | 219 23:53:03 | -146.39 | 9627 | |

SATELLITE C3**Ascending Node Predictions****Predicting for 186 days**

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 220 00:11:30 | 65.04 | 30718 |
| 220 01:56:25 | 38.68 | 30719 |
| 220 03:41:20 | 12.33 | 30720 |
| 220 05:26:15 | -14.02 | 30721 |
| 220 07:11:10 | -40.38 | 30722 |
| 220 08:56:04 | -66.73 | 30723 |
| 220 10:40:59 | -93.09 | 30724 |
| 220 12:25:54 | -119.44 | 30725 |
| 220 14:10:49 | -145.79 | 30726 |
| 220 15:55:44 | -172.15 | 30727 |
| 220 17:40:39 | 161.50 | 30728 |
| 220 19:25:33 | 135.14 | 30729 |
| 220 21:10:28 | 108.79 | 30730 |
| 220 22:55:23 | 82.44 | 30731 |

SATELLITE C4**Ascending Node Predictions****Predicting for 184 days**

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 220 00:55:52 | -83.42 | 5484 |
| 220 02:40:46 | -109.77 | 5485 |
| 220 04:25:40 | -136.12 | 5486 |
| 220 06:10:34 | -162.47 | 5487 |
| 220 07:55:28 | 171.18 | 5488 |
| 220 09:40:21 | 144.83 | 5489 |
| 220 11:25:15 | 118.48 | 5490 |
| 220 13:10:09 | 92.13 | 5491 |
| 220 14:55:03 | 65.79 | 5492 |
| 220 16:39:56 | 39.43 | 5493 |
| 220 18:24:50 | 13.09 | 5494 |
| 220 20:09:44 | -13.26 | 5495 |
| 220 21:54:38 | -39.61 | 5496 |
| 220 23:39:31 | -65.96 | 5497 |

| | | |
|--------------|---------|-------|
| 221 00:40:18 | 56.08 | 30732 |
| 221 02:25:13 | 29.73 | 30733 |
| 221 04:10:08 | 3.37 | 30734 |
| 221 05:55:03 | -22.98 | 30735 |
| 221 07:39:57 | -49.34 | 30736 |
| 221 09:24:52 | -75.69 | 30737 |
| 221 11:09:47 | -102.04 | 30738 |
| 221 12:54:42 | -128.40 | 30739 |
| 221 14:39:37 | -154.75 | 30740 |
| 221 16:24:32 | 178.90 | 30741 |
| 221 18:09:27 | 152.54 | 30742 |
| 221 19:54:21 | 126.19 | 30743 |
| 221 21:39:16 | 99.83 | 30744 |
| 221 23:24:11 | 73.48 | 30745 |

| | | |
|--------------|---------|------|
| 221 01:24:25 | -92.31 | 5498 |
| 221 03:09:19 | -118.66 | 5499 |
| 221 04:54:13 | -145.01 | 5500 |
| 221 06:39:06 | -171.36 | 5501 |
| 221 08:24:00 | 162.29 | 5502 |
| 221 10:08:54 | 135.94 | 5503 |
| 221 11:53:48 | 109.59 | 5504 |
| 221 13:38:41 | 83.24 | 5505 |
| 221 15:23:35 | 56.89 | 5506 |
| 221 17:08:29 | 30.54 | 5507 |
| 221 18:53:23 | 4.19 | 5508 |
| 221 20:38:16 | -22.16 | 5509 |
| 221 22:23:10 | -48.51 | 5510 |

| | | |
|--------------|---------|-------|
| 222 01:09:06 | 47.13 | 30746 |
| 222 02:54:01 | 20.77 | 30747 |
| 222 04:38:56 | -5.58 | 30748 |
| 222 06:23:50 | -31.94 | 30749 |
| 222 08:08:45 | -58.29 | 30750 |
| 222 09:53:40 | -84.64 | 30751 |
| 222 11:38:35 | -111.00 | 30752 |
| 222 13:23:30 | -137.35 | 30753 |
| 222 15:08:25 | -163.71 | 30754 |
| 222 16:53:20 | 169.94 | 30755 |
| 222 18:38:14 | 143.58 | 30756 |
| 222 20:23:09 | 117.23 | 30757 |
| 222 22:08:04 | 90.88 | 30758 |
| 222 23:52:59 | 64.52 | 30759 |

| | | |
|--------------|---------|------|
| 222 00:08:04 | -74.86 | 5511 |
| 222 01:52:58 | -101.20 | 5512 |
| 222 03:37:52 | -127.55 | 5513 |
| 222 05:22:45 | -153.90 | 5514 |
| 222 07:07:39 | 179.75 | 5515 |
| 222 08:52:33 | 153.40 | 5516 |
| 222 10:37:27 | 127.05 | 5517 |
| 222 12:22:20 | 100.70 | 5518 |
| 222 14:07:14 | 74.35 | 5519 |
| 222 15:52:08 | 48.00 | 5520 |
| 222 17:37:02 | 21.65 | 5521 |
| 222 19:21:55 | -4.70 | 5522 |
| 222 21:06:49 | -31.05 | 5523 |
| 222 22:51:43 | -57.40 | 5524 |

| | | |
|--------------|---------|-------|
| 223 01:37:54 | 38.17 | 30760 |
| 223 03:22:49 | 11.82 | 30761 |
| 223 05:07:43 | -14.54 | 30762 |
| 223 06:52:38 | -40.89 | 30763 |
| 223 08:37:33 | -67.25 | 30764 |
| 223 10:22:28 | -93.60 | 30765 |
| 223 12:07:23 | -119.95 | 30766 |
| 223 13:52:18 | -146.31 | 30767 |
| 223 15:37:13 | -172.66 | 30768 |
| 223 17:22:07 | 160.98 | 30769 |
| 223 19:07:02 | 134.63 | 30770 |
| 223 20:51:57 | 108.27 | 30771 |
| 223 22:36:52 | 81.92 | 30772 |

| | | |
|--------------|---------|------|
| 223 00:36:37 | -83.75 | 5525 |
| 223 02:21:30 | -110.10 | 5526 |
| 223 04:06:24 | -136.45 | 5527 |
| 223 05:51:18 | -162.80 | 5528 |
| 223 07:36:12 | 170.86 | 5529 |
| 223 09:21:05 | 144.50 | 5530 |
| 223 11:05:59 | 118.15 | 5531 |
| 223 12:50:53 | 91.81 | 5532 |
| 223 14:35:47 | 65.46 | 5533 |
| 223 16:20:41 | 39.11 | 5534 |
| 223 18:05:34 | 12.76 | 5535 |
| 223 19:50:28 | -13.59 | 5536 |
| 223 21:35:22 | -39.94 | 5537 |
| 223 23:20:16 | -66.29 | 5538 |

| SATELLITE S2 | | | | | | | SATELLITE S3 | | | | | | | SATELLITE S4 | | | | | | |
|----------------------------|---------|-------|-------|--------------|---------|-------|----------------------------|--------------|---------|------|-------|------------|----|----------------------------|-------|------------|----|------|-------|--|
| Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | |
| day | hr | mn | sc | day | hr | mn | sc | day | hr | mn | sc | day | hr | mn | sc | day | hr | mn | sc | |
| deg | dg | | | deg | dg | | | deg | dg | | | deg | dg | | | deg | dg | | | |
| 220 01:21:32 | -115.75 | 29131 | | 220 00:26:56 | -76.12 | 20197 | | 220 01:35:07 | -171.90 | 9628 | | | | | | | | | | |
| 220 03:03:33 | -141.26 | 29132 | | 220 02:08:10 | -101.43 | 20198 | | 220 03:17:12 | 162.58 | 9629 | | | | | | | | | | |
| 220 04:45:33 | -166.75 | 29133 | | 220 03:49:23 | -126.74 | 20199 | | 220 04:59:17 | 137.06 | 9630 | | | | | | | | | | |
| 220 06:27:34 | 167.74 | 29134 | | 220 05:30:36 | -152.04 | 20200 | | 220 06:41:22 | 111.54 | 9631 | | | | | | | | | | |
| 220 08:09:34 | 142.25 | 29135 | | 220 07:11:49 | -177.34 | 20201 | | 220 08:23:27 | 86.02 | 9632 | | | | | | | | | | |
| 220 09:51:35 | 116.74 | 29136 | | 220 08:53:02 | 157.35 | 20202 | | 220 10:05:31 | 60.51 | 9633 | | | | | | | | | | |
| 220 11:33:35 | 91.25 | 29137 | | 220 10:34:16 | 132.04 | 20203 | | 220 11:47:36 | 34.99 | 9634 | | | | | | | | | | |
| 220 13:15:36 | 65.74 | 29138 | | 220 12:15:29 | 106.73 | 20204 | | 220 13:29:41 | 9.46 | 9635 | | | | | | | | | | |
| 220 14:57:36 | 40.25 | 29139 | | 220 13:56:42 | 81.43 | 20205 | | 220 15:11:46 | -16.06 | 9636 | | | | | | | | | | |
| 220 16:39:37 | 14.75 | 29140 | | 220 15:37:55 | 56.13 | 20206 | | 220 16:53:50 | -41.57 | 9637 | | | | | | | | | | |
| 220 18:21:37 | -10.75 | 29141 | | 220 17:19:08 | 30.83 | 20207 | | 220 18:35:55 | -67.09 | 9638 | | | | | | | | | | |
| 220 20:03:38 | -36.25 | 29142 | | 220 19:00:21 | 5.52 | 20208 | | 220 20:18:00 | -92.61 | 9639 | | | | | | | | | | |
| 220 21:45:38 | -61.75 | 29143 | | 220 20:41:35 | -19.79 | 20209 | | 220 22:00:05 | -118.13 | 9640 | | | | | | | | | | |
| 220 23:27:39 | -87.25 | 29144 | | 220 22:22:48 | -45.10 | 20210 | | 220 23:42:10 | -143.65 | 9641 | | | | | | | | | | |
| 221 01:09:39 | -112.74 | 29145 | | 221 00:04:01 | -70.40 | 20211 | | 221 01:24:14 | -169.16 | 9642 | | | | | | | | | | |
| 221 02:51:40 | -138.25 | 29146 | | 221 01:45:14 | -95.70 | 20212 | | 221 03:06:19 | 165.32 | 9643 | | | | | | | | | | |
| 221 04:33:40 | -163.74 | 29147 | | 221 03:26:27 | -121.00 | 20213 | | 221 04:48:24 | 139.79 | 9644 | | | | | | | | | | |
| 221 06:15:41 | 170.75 | 29148 | | 221 05:07:41 | -146.32 | 20214 | | 221 06:30:29 | 114.27 | 9645 | | | | | | | | | | |
| 221 07:57:41 | 145.26 | 29149 | | 221 06:48:54 | -171.62 | 20215 | | 221 08:12:34 | 88.75 | 9646 | | | | | | | | | | |
| 221 09:39:42 | 119.75 | 29150 | | 221 08:30:07 | 163.07 | 20216 | | 221 09:54:38 | 63.24 | 9647 | | | | | | | | | | |
| 221 11:21:42 | 94.26 | 29151 | | 221 10:11:20 | 137.77 | 20217 | | 221 11:36:43 | 37.72 | 9648 | | | | | | | | | | |
| 221 13:03:43 | 68.75 | 29152 | | 221 11:52:33 | 112.47 | 20218 | | 221 13:18:48 | 12.20 | 9649 | | | | | | | | | | |
| 221 14:45:43 | 43.26 | 29153 | | 221 13:33:47 | 87.15 | 20219 | | 221 15:00:53 | -13.32 | 9650 | | | | | | | | | | |
| 221 16:27:44 | 17.75 | 29154 | | 221 15:15:00 | 61.85 | 20220 | | 221 16:42:58 | -38.84 | 9651 | | | | | | | | | | |
| 221 18:09:44 | -7.74 | 29155 | | 221 16:56:13 | 36.55 | 20221 | | 221 18:25:02 | -64.35 | 9652 | | | | | | | | | | |
| 221 19:51:45 | -33.25 | 29156 | | 221 18:37:26 | 11.24 | 20222 | | 221 20:07:07 | -89.87 | 9653 | | | | | | | | | | |
| 221 21:33:45 | -58.74 | 29157 | | 221 20:18:39 | -14.06 | 20223 | | 221 21:49:12 | -115.40 | 9654 | | | | | | | | | | |
| 221 23:15:46 | -84.24 | 29158 | | 221 21:59:53 | -39.38 | 20224 | | 221 23:31:17 | -140.92 | 9655 | | | | | | | | | | |
| 222 00:57:46 | -109.74 | 29159 | | 222 01:22:19 | -89.98 | 20226 | | 222 01:13:21 | -166.43 | 9656 | | | | | | | | | | |
| 222 02:39:47 | -135.24 | 29160 | | 222 03:03:32 | -115.29 | 20227 | | 222 02:55:26 | 168.05 | 9657 | | | | | | | | | | |
| 222 04:21:47 | -160.74 | 29161 | | 222 04:44:45 | -140.59 | 20228 | | 222 04:37:31 | 142.53 | 9658 | | | | | | | | | | |
| 222 06:03:48 | 173.76 | 29162 | | 222 06:25:59 | -165.90 | 20229 | | 222 06:19:36 | 117.01 | 9659 | | | | | | | | | | |
| 222 07:45:48 | 148.27 | 29163 | | 222 08:07:12 | 168.79 | 20230 | | 222 08:01:41 | 91.49 | 9660 | | | | | | | | | | |
| 222 09:27:49 | 122.76 | 29164 | | 222 09:48:25 | 143.49 | 20231 | | 222 09:43:45 | 65.98 | 9661 | | | | | | | | | | |
| 222 11:09:49 | 97.27 | 29165 | | 222 11:29:38 | 118.19 | 20232 | | 222 11:25:50 | 40.46 | 9662 | | | | | | | | | | |
| 222 12:51:50 | 71.76 | 29166 | | 222 13:10:51 | 92.88 | 20233 | | 222 13:07:55 | 14.93 | 9663 | | | | | | | | | | |
| 222 14:33:50 | 46.27 | 29167 | | 222 14:52:05 | 67.57 | 20234 | | 222 14:50:00 | -10.59 | 9664 | | | | | | | | | | |
| 222 16:15:51 | 20.76 | 29168 | | 222 16:33:18 | 42.27 | 20235 | | 222 16:32:05 | -36.11 | 9665 | | | | | | | | | | |
| 222 17:57:51 | -4.73 | 29169 | | 222 18:14:31 | 16.96 | 20236 | | 222 18:14:09 | -61.62 | 9666 | | | | | | | | | | |
| 222 19:39:52 | -30.24 | 29170 | | 222 19:55:44 | -8.34 | 20237 | | 222 19:56:14 | -87.14 | 9667 | | | | | | | | | | |
| 222 21:21:52 | -55.73 | 29171 | | 222 21:36:57 | -33.64 | 20238 | | 222 21:38:19 | -112.66 | 9668 | | | | | | | | | | |
| 222 23:03:53 | -81.24 | 29172 | | 222 23:18:11 | -58.96 | 20239 | | 222 23:20:24 | -138.18 | 9669 | | | | | | | | | | |
| 223 00:45:53 | -106.73 | 29173 | | 223 00:59:24 | -84.26 | 20240 | | 223 01:02:28 | -163.69 | 9670 | | | | | | | | | | |
| 223 02:27:54 | -132.24 | 29174 | | 223 02:40:37 | -109.57 | 20241 | | 223 02:44:33 | 170.79 | 9671 | | | | | | | | | | |
| 223 04:09:54 | -157.73 | 29175 | | 223 04:21:50 | -134.87 | 20242 | | 223 04:26:38 | 145.26 | 9672 | | | | | | | | | | |
| 223 05:51:55 | 176.77 | 29176 | | 223 06:03:03 | -160.17 | 20243 | | 223 06:08:43 | 119.74 | 9673 | | | | | | | | | | |
| 223 07:33:55 | 151.27 | 29177 | | 223 07:44:17 | 174.51 | 20244 | | 223 07:50:48 | 94.22 | 9674 | | | | | | | | | | |
| 223 09:15:56 | 125.77 | 29178 | | 223 09:25:30 | 149.21 | 20245 | | 223 09:32:52 | 68.71 | 9675 | | | | | | | | | | |
| 223 10:57:56 | 100.27 | 29179 | | 223 11:06:43 | 123.91 | 20246 | | 223 11:14:57 | 43.19 | 9676 | | | | | | | | | | |
| 223 12:39:57 | 74.77 | 29180 | | 223 12:47:56 | 98.60 | 20247 | | 223 12:57:02 | 17.67 | 9677 | | | | | | | | | | |
| 223 14:21:57 | 49.28 | 29181 | | 223 14:29:09 | 73.30 | 20248 | | 223 14:39:07 | -7.85 | 9678 | | | | | | | | | | |
| 223 16:03:58 | 23.77 | 29182 | | 223 16:10:22 | 48.00 | 20249 | | 223 16:21:12 | -33.38 | 9679 | | | | | | | | | | |
| 223 17:45:58 | -1.72 | 29183 | | 223 17:51:36 | 22.68 | 20250 | | 223 18:03:16 | -58.88 | 9680 | | | | | | | | | | |
| 223 19:27:59 | -27.23 | 29184 | | 223 19:32:49 | -2.62 | 20251 | | 223 19:45:21 | -84.41 | 9681 | | | | | | | | | | |
| 223 21:09:59 | -52.72 | 29185 | | 223 21:14:02 | -27.92 | 20252 | | 223 21:27:26 | -109.93 | 9682 | | | | | | | | | | |
| 223 22:52:00 | -78.23 | 29186 | | 223 22:55:15 | -53.23 | 20253 | | 223 23:09:31 | -135.45 | 9683 | | | | | | | | | | |

West longitude is negative (-)

SATELLITE C3

Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 224 00:21:47 | 55.57 | 30773 |
| 224 02:06:42 | 29.21 | 30774 |
| 224 03:51:37 | 2.86 | 30775 |
| 224 05:36:31 | -23.50 | 30776 |
| 224 07:21:26 | -49.85 | 30777 |
| 224 09:06:21 | -76.20 | 30778 |
| 224 10:51:16 | -102.56 | 30779 |
| 224 12:36:11 | -128.91 | 30780 |
| 224 14:21:06 | -155.26 | 30781 |
| 224 16:06:00 | -178.38 | 30782 |
| 224 17:50:55 | -152.03 | 30783 |
| 224 19:35:50 | -125.67 | 30784 |
| 224 21:20:45 | -99.32 | 30785 |
| 224 23:05:40 | 72.96 | 30786 |

SATELLITE C4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 224 01:05:09 | -92.64 | 5539 |
| 224 02:50:03 | -118.99 | 5540 |
| 224 04:34:57 | -145.34 | 5541 |
| 224 06:19:51 | -171.69 | 5542 |
| 224 08:04:44 | 161.96 | 5543 |
| 224 09:49:38 | 135.61 | 5544 |
| 224 11:34:32 | 109.26 | 5545 |
| 224 13:19:26 | 82.91 | 5546 |
| 224 15:04:19 | 56.56 | 5547 |
| 224 16:49:13 | 30.21 | 5548 |
| 224 18:34:07 | 3.86 | 5549 |
| 224 20:19:01 | -22.48 | 5550 |
| 224 22:03:55 | -48.83 | 5551 |
| 224 23:48:48 | -75.18 | 5552 |

| | | |
|--------------|---------|-------|
| 225 00:50:35 | 46.61 | 30787 |
| 225 02:35:30 | 20.26 | 30788 |
| 225 04:20:24 | -6.10 | 30789 |
| 225 06:05:19 | -32.45 | 30790 |
| 225 07:50:14 | -58.81 | 30791 |
| 225 09:35:09 | -85.16 | 30792 |
| 225 11:20:04 | -111.51 | 30793 |
| 225 13:04:59 | -137.87 | 30794 |
| 225 14:49:53 | -164.22 | 30795 |
| 225 16:34:48 | -169.42 | 30796 |
| 225 18:19:43 | -143.07 | 30797 |
| 225 20:04:38 | -116.72 | 30798 |
| 225 21:49:33 | -90.36 | 30799 |
| 225 23:34:28 | 64.01 | 30800 |

| | | |
|--------------|---------|------|
| 225 01:33:42 | -101.53 | 5553 |
| 225 03:18:36 | -127.88 | 5554 |
| 225 05:03:30 | -154.23 | 5555 |
| 225 06:48:23 | 179.42 | 5556 |
| 225 08:33:17 | 153.07 | 5557 |
| 225 10:18:11 | 126.72 | 5558 |
| 225 12:03:05 | 100.37 | 5559 |
| 225 13:47:58 | 74.02 | 5560 |
| 225 15:32:52 | 47.67 | 5561 |
| 225 17:17:46 | 21.32 | 5562 |
| 225 19:02:40 | -5.03 | 5563 |
| 225 20:47:33 | -31.38 | 5564 |
| 225 22:32:27 | -57.73 | 5565 |

| | | |
|--------------|---------|-------|
| 226 01:19:23 | 37.66 | 30801 |
| 226 03:04:17 | 11.30 | 30802 |
| 226 04:49:12 | -15.05 | 30803 |
| 226 06:34:07 | -41.41 | 30804 |
| 226 08:19:02 | -67.76 | 30805 |
| 226 10:03:57 | -94.12 | 30806 |
| 226 11:48:52 | -120.47 | 30807 |
| 226 13:33:47 | -146.82 | 30808 |
| 226 15:18:41 | -173.18 | 30809 |
| 226 17:03:36 | -160.47 | 30810 |
| 226 18:48:31 | -134.11 | 30811 |
| 226 20:33:26 | -107.76 | 30812 |
| 226 22:18:21 | 81.41 | 30813 |

| | | |
|--------------|---------|------|
| 226 00:17:21 | -84.08 | 5566 |
| 226 02:02:15 | -110.43 | 5567 |
| 226 03:47:09 | -136.77 | 5568 |
| 226 05:32:02 | -163.13 | 5569 |
| 226 07:16:56 | 170.53 | 5570 |
| 226 09:01:50 | 144.18 | 5571 |
| 226 10:46:44 | 117.83 | 5572 |
| 226 12:31:37 | 91.48 | 5573 |
| 226 14:16:31 | 65.13 | 5574 |
| 226 16:01:25 | 38.78 | 5575 |
| 226 17:46:19 | 12.43 | 5576 |
| 226 19:31:12 | -13.92 | 5577 |
| 226 21:16:06 | -40.27 | 5578 |
| 226 23:01:00 | -66.62 | 5579 |

| | | |
|--------------|---------|-------|
| 227 00:03:16 | 55.05 | 30814 |
| 227 01:48:10 | 28.70 | 30815 |
| 227 03:33:05 | 2.34 | 30816 |
| 227 05:18:00 | -24.01 | 30817 |
| 227 07:02:55 | -50.36 | 30818 |
| 227 08:47:50 | -76.72 | 30819 |
| 227 10:32:45 | -103.07 | 30820 |
| 227 12:17:40 | -129.43 | 30821 |
| 227 14:02:34 | -155.78 | 30822 |
| 227 15:47:29 | 177.86 | 30823 |
| 227 17:32:24 | 151.51 | 30824 |
| 227 19:17:19 | 125.16 | 30825 |
| 227 21:02:14 | 98.80 | 30826 |
| 227 22:47:09 | 72.45 | 30827 |

| | | |
|--------------|---------|------|
| 227 00:45:54 | -92.97 | 5580 |
| 227 02:30:47 | -119.32 | 5581 |
| 227 04:15:41 | -145.67 | 5582 |
| 227 06:00:35 | -172.02 | 5583 |
| 227 07:45:29 | 161.63 | 5584 |
| 227 09:30:23 | 135.28 | 5585 |
| 227 11:15:16 | 108.93 | 5586 |
| 227 13:00:10 | 82.58 | 5587 |
| 227 14:45:04 | 56.23 | 5588 |
| 227 16:29:58 | 29.89 | 5589 |
| 227 18:14:51 | 3.53 | 5590 |
| 227 19:59:45 | -22.81 | 5591 |
| 227 21:44:39 | -49.16 | 5592 |
| 227 23:29:33 | -75.51 | 5593 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|--|----------------------------|---------|-------|--|----------------------------|---------|-------|--|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E LONG | ORBIT | | TIME (GMT) | E LONG | ORBIT | | TIME (GMT) | E LONG | ORBIT | |
| day hr mn sc | deg dg | | | day hr mn sc | deg dg | | | day hr mn sc | deg dg | | |
| 224 00:34:00 | -103.72 | 29187 | | 224 00:36:28 | -78.53 | 20254 | | 224 00:51:35 | -160.96 | 9684 | |
| 224 02:16:01 | -129.23 | 29188 | | 224 02:17:42 | -103.85 | 20255 | | 224 02:33:40 | 173.52 | 9685 | |
| 224 03:58:01 | -154.72 | 29189 | | 224 03:58:55 | -129.15 | 20256 | | 224 04:15:45 | 148.00 | 9686 | |
| 224 05:40:02 | 179.77 | 29190 | | 224 05:40:08 | -154.45 | 20257 | | 224 05:57:50 | 122.48 | 9687 | |
| 224 07:22:03 | 154.27 | 29191 | | 224 07:21:21 | -179.75 | 20258 | | 224 07:39:55 | 96.95 | 9688 | |
| 224 09:04:03 | 128.77 | 29192 | | 224 09:02:34 | 154.94 | 20259 | | 224 09:21:59 | 71.45 | 9689 | |
| 224 10:46:04 | 103.27 | 29193 | | 224 10:43:48 | 129.63 | 20260 | | 224 11:04:04 | 45.92 | 9690 | |
| 224 12:28:04 | 77.78 | 29194 | | 224 12:25:01 | 104.32 | 20261 | | 224 12:46:09 | 20.40 | 9691 | |
| 224 14:10:05 | 52.27 | 29195 | | 224 14:06:14 | 79.92 | 20262 | | 224 14:28:14 | -5.12 | 9692 | |
| 224 15:52:05 | 26.78 | 29196 | | 224 15:47:27 | 53.72 | 20263 | | 224 16:10:19 | -30.64 | 9693 | |
| 224 17:34:06 | 1.27 | 29197 | | 224 17:28:40 | 28.41 | 20264 | | 224 17:52:23 | -56.15 | 9694 | |
| 224 19:16:06 | -24.22 | 29198 | | 224 19:09:54 | 3.10 | 20265 | | 224 19:34:28 | -81.67 | 9695 | |
| 224 20:58:07 | -49.73 | 29199 | | 224 20:51:07 | -22.20 | 20266 | | 224 21:16:33 | -107.19 | 9696 | |
| 224 22:40:07 | -75.22 | 29200 | | 224 22:32:20 | -47.51 | 20267 | | 224 22:58:38 | -132.72 | 9697 | |
| 225 00:22:08 | -100.73 | 29201 | | 225 00:13:33 | -72.81 | 20268 | | 225 00:40:43 | -158.24 | 9698 | |
| 225 02:04:08 | -126.22 | 29202 | | 225 01:54:46 | -98.11 | 20269 | | 225 02:22:47 | 176.25 | 9699 | |
| 225 03:46:09 | -151.73 | 29203 | | 225 03:36:00 | -123.43 | 20270 | | 225 04:04:52 | 150.73 | 9700 | |
| 225 05:28:09 | -177.22 | 29204 | | 225 05:17:13 | -148.73 | 20271 | | 225 05:46:57 | 125.21 | 9701 | |
| 225 07:10:10 | 157.28 | 29205 | | 225 06:58:26 | -174.04 | 20272 | | 225 07:29:02 | 99.69 | 9702 | |
| 225 08:52:10 | 131.78 | 29206 | | 225 08:39:39 | 160.66 | 20273 | | 225 09:11:06 | 74.18 | 9703 | |
| 225 10:34:11 | 106.28 | 29207 | | 225 10:20:52 | 135.36 | 20274 | | 225 10:53:11 | 48.66 | 9704 | |
| 225 12:16:11 | 80.78 | 29208 | | 225 12:02:06 | 110.04 | 20275 | | 225 12:35:16 | 23.14 | 9705 | |
| 225 13:58:12 | 55.28 | 29209 | | 225 13:43:19 | 84.74 | 20276 | | 225 14:17:21 | -2.39 | 9706 | |
| 225 15:40:12 | 29.78 | 29210 | | 225 15:24:32 | 59.44 | 20277 | | 225 15:59:26 | -27.91 | 9707 | |
| 225 17:22:13 | 4.28 | 29211 | | 225 17:05:45 | 34.13 | 20278 | | 225 17:41:30 | -53.42 | 9708 | |
| 225 19:04:13 | -21.21 | 29212 | | 225 18:46:58 | 8.83 | 20279 | | 225 19:23:35 | -78.94 | 9709 | |
| 225 20:46:14 | -46.72 | 29213 | | 225 20:28:11 | -16.47 | 20280 | | 225 21:05:40 | -104.46 | 9710 | |
| 225 22:28:14 | -72.21 | 29214 | | 225 22:09:25 | -41.79 | 20281 | | 225 22:47:45 | -129.98 | 9711 | |
| 225 23:50:38 | -67.09 | 20282 | | | | | | | | | |
| 226 00:10:15 | -97.72 | 29215 | | 226 01:31:51 | -92.39 | 20283 | | 226 00:29:50 | -155.50 | 9712 | |
| 226 01:52:15 | -123.21 | 29216 | | 226 03:13:04 | -117.70 | 20284 | | 226 02:11:54 | 178.99 | 9713 | |
| 226 03:34:16 | -148.72 | 29217 | | 226 04:54:17 | -143.00 | 20285 | | 226 03:53:59 | 153.47 | 9714 | |
| 226 05:16:16 | -174.21 | 29218 | | 226 06:35:31 | -168.32 | 20286 | | 226 05:36:04 | 127.95 | 9715 | |
| 226 06:58:17 | 160.28 | 29219 | | 226 08:16:44 | 166.38 | 20287 | | 226 07:18:09 | 102.42 | 9716 | |
| 226 08:40:17 | 134.79 | 29220 | | 226 09:57:57 | 141.08 | 20288 | | 226 09:00:13 | 76.91 | 9717 | |
| 226 10:22:18 | 109.28 | 29221 | | 226 11:39:10 | 115.78 | 20289 | | 226 10:42:18 | 51.39 | 9718 | |
| 226 12:04:18 | 83.79 | 29222 | | 226 13:20:23 | 90.47 | 20290 | | 226 12:24:23 | 25.87 | 9719 | |
| 226 13:46:19 | 58.29 | 29223 | | 226 15:01:37 | 65.16 | 20291 | | 226 14:06:28 | .35 | 9720 | |
| 226 15:28:19 | 32.79 | 29224 | | 226 16:42:50 | 39.85 | 20292 | | 226 15:48:33 | -25.17 | 9721 | |
| 226 17:10:20 | 7.29 | 29225 | | 226 18:24:03 | 14.55 | 20293 | | 226 17:30:37 | -50.68 | 9722 | |
| 226 18:52:20 | -18.21 | 29226 | | 226 20:05:16 | -10.75 | 20294 | | 226 19:12:42 | -76.20 | 9723 | |
| 226 20:34:21 | -43.71 | 29227 | | 226 21:46:29 | -36.06 | 20295 | | 226 20:54:47 | -101.72 | 9724 | |
| 226 22:16:21 | -69.21 | 29228 | | 226 23:27:43 | -61.37 | 20296 | | 226 22:36:52 | -127.25 | 9725 | |
| 226 23:58:22 | -94.71 | 29229 | | | | | | | | | |
| 227 01:40:22 | -120.20 | 29230 | | 227 01:08:56 | -86.67 | 20297 | | 227 00:18:57 | -152.77 | 9726 | |
| 227 03:22:23 | -145.71 | 29231 | | 227 02:50:09 | -111.98 | 20298 | | 227 02:01:01 | -178.28 | 9727 | |
| 227 05:04:23 | -171.20 | 29232 | | 227 04:31:22 | -137.28 | 20299 | | 227 03:43:06 | 156.20 | 9728 | |
| 227 06:46:24 | 163.29 | 29233 | | 227 06:12:35 | -162.58 | 20300 | | 227 05:25:11 | 130.68 | 9729 | |
| 227 08:28:24 | 137.80 | 29234 | | 227 07:53:49 | 172.10 | 20301 | | 227 07:07:16 | 105.16 | 9730 | |
| 227 10:10:25 | 112.29 | 29235 | | 227 09:35:02 | 146.80 | 20302 | | 227 08:49:20 | 79.65 | 9731 | |
| 227 11:52:25 | 86.80 | 29236 | | 227 11:16:15 | 121.49 | 20303 | | 227 10:31:25 | 54.13 | 9732 | |
| 227 13:34:26 | 61.29 | 29237 | | 227 12:57:28 | 96.19 | 20304 | | 227 12:13:30 | 28.61 | 9733 | |
| 227 15:16:26 | 35.80 | 29238 | | 227 14:38:41 | 70.89 | 20305 | | 227 13:55:35 | 3.08 | 9734 | |
| 227 16:58:27 | 10.29 | 29239 | | 227 16:19:55 | 45.57 | 20306 | | 227 15:37:40 | -22.44 | 9735 | |
| 227 18:40:27 | -15.20 | 29240 | | 227 18:01:08 | 20.27 | 20307 | | 227 17:19:44 | -47.95 | 9736 | |
| 227 20:22:28 | -40.70 | 29241 | | 227 19:42:21 | -5.03 | 20308 | | 227 19:01:49 | -73.47 | 9737 | |
| 227 22:04:28 | -66.20 | 29242 | | 227 21:23:34 | -30.34 | 20309 | | 227 20:43:54 | -98.99 | 9738 | |
| 227 23:46:29 | -91.70 | 29243 | | 227 23:04:47 | -55.64 | 20310 | | 227 22:25:59 | -124.51 | 9739 | |

SATELLITE C3

Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 228 00:32:03 | 46.09 | 30828 |
| 228 02:16:58 | 19.74 | 30829 |
| 228 04:01:53 | -6.61 | 30830 |
| 228 05:46:48 | -32.97 | 30831 |
| 228 07:31:43 | -59.32 | 30832 |
| 228 09:16:38 | -85.67 | 30833 |
| 228 11:01:33 | -112.03 | 30834 |
| 228 12:46:27 | -138.38 | 30835 |
| 228 14:31:22 | -164.74 | 30836 |
| 228 16:16:17 | 168.91 | 30837 |
| 228 18:01:12 | 142.55 | 30838 |
| 228 19:46:07 | 116.20 | 30839 |
| 228 21:31:02 | 89.85 | 30840 |
| 228 23:15:57 | 63.49 | 30841 |

SATELLITE C4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 228 01:14:26 | -101.86 | 5594 |
| 228 02:59:20 | -128.21 | 5595 |
| 228 04:44:14 | -154.56 | 5596 |
| 228 06:29:08 | 179.09 | 5597 |
| 228 08:14:02 | 152.74 | 5598 |
| 228 09:58:55 | 126.39 | 5599 |
| 228 11:43:49 | 100.04 | 5600 |
| 228 13:28:43 | 73.69 | 5601 |
| 228 15:13:37 | 47.34 | 5602 |
| 228 16:58:30 | 20.99 | 5603 |
| 228 18:43:24 | -5.36 | 5604 |
| 228 20:28:18 | -31.71 | 5605 |
| 228 22:13:12 | -58.06 | 5606 |
| 228 23:58:05 | -84.41 | 5607 |

| | | |
|--------------|---------|-------|
| 229 01:00:51 | 37.14 | 30842 |
| 229 02:45:46 | 10.78 | 30843 |
| 229 04:30:41 | -15.57 | 30844 |
| 229 06:15:36 | -41.92 | 30845 |
| 229 08:00:31 | -68.28 | 30846 |
| 229 09:45:26 | -94.63 | 30847 |
| 229 11:30:20 | -120.99 | 30848 |
| 229 13:15:15 | -147.34 | 30849 |
| 229 15:00:10 | -173.69 | 30850 |
| 229 16:45:05 | 159.95 | 30851 |
| 229 18:30:00 | 133.60 | 30852 |
| 229 20:14:55 | 107.25 | 30853 |
| 229 21:59:50 | 80.89 | 30854 |
| 229 23:44:44 | 54.54 | 30855 |

| | | |
|--------------|---------|------|
| 229 01:42:59 | -110.76 | 5608 |
| 229 03:27:53 | -137.11 | 5609 |
| 229 05:12:47 | -163.45 | 5610 |
| 229 06:57:41 | 170.20 | 5611 |
| 229 08:42:34 | 143.85 | 5612 |
| 229 10:27:28 | 117.50 | 5613 |
| 229 12:12:22 | 91.15 | 5614 |
| 229 13:57:16 | 64.80 | 5615 |
| 229 15:42:09 | 38.45 | 5616 |
| 229 17:27:03 | 12.10 | 5617 |
| 229 19:11:57 | -14.25 | 5618 |
| 229 20:56:51 | -40.60 | 5619 |
| 229 22:41:44 | -66.95 | 5620 |

| | | |
|--------------|---------|-------|
| 230 01:29:39 | 28.18 | 30856 |
| 230 03:14:34 | 1.83 | 30857 |
| 230 04:59:29 | -24.53 | 30858 |
| 230 06:44:24 | -50.88 | 30859 |
| 230 08:29:19 | -77.23 | 30860 |
| 230 10:14:13 | -103.59 | 30861 |
| 230 11:59:08 | -129.94 | 30862 |
| 230 13:44:03 | -156.30 | 30863 |
| 230 15:28:58 | 177.35 | 30864 |
| 230 17:13:53 | 151.00 | 30865 |
| 230 18:58:48 | 124.64 | 30866 |
| 230 20:43:43 | 98.29 | 30867 |
| 230 22:28:37 | 71.93 | 30868 |

| | | |
|--------------|---------|------|
| 230 00:26:38 | -93.30 | 5621 |
| 230 02:11:32 | -119.65 | 5622 |
| 230 03:56:26 | -146.00 | 5623 |
| 230 05:41:20 | -172.35 | 5624 |
| 230 07:26:13 | 161.30 | 5625 |
| 230 09:11:07 | 134.95 | 5626 |
| 230 10:56:01 | 108.60 | 5627 |
| 230 12:40:55 | 82.25 | 5628 |
| 230 14:25:48 | 55.90 | 5629 |
| 230 16:10:42 | 29.55 | 5630 |
| 230 17:55:36 | 3.21 | 5631 |
| 230 19:40:30 | -23.14 | 5632 |
| 230 21:25:23 | -49.50 | 5633 |
| 230 23:10:17 | -75.84 | 5634 |

| | | |
|--------------|---------|-------|
| 231 00:13:32 | 45.58 | 30869 |
| 231 01:58:27 | 19.23 | 30870 |
| 231 03:43:22 | -7.13 | 30871 |
| 231 05:28:17 | -33.48 | 30872 |
| 231 07:13:12 | -59.83 | 30873 |
| 231 08:58:06 | -86.19 | 30874 |
| 231 10:43:01 | -112.54 | 30875 |
| 231 12:27:56 | -138.90 | 30876 |
| 231 14:12:51 | -165.25 | 30877 |
| 231 15:57:46 | 168.39 | 30878 |
| 231 17:42:41 | 142.04 | 30879 |
| 231 19:27:36 | 115.69 | 30880 |
| 231 21:12:30 | 89.33 | 30881 |
| 231 22:57:25 | 62.98 | 30882 |

| | | |
|--------------|---------|------|
| 231 00:55:11 | -102.19 | 5635 |
| 231 02:40:05 | -128.54 | 5636 |
| 231 04:24:59 | -154.89 | 5637 |
| 231 06:09:52 | 178.76 | 5638 |
| 231 07:54:46 | 152.41 | 5639 |
| 231 09:39:40 | 126.06 | 5640 |
| 231 11:24:34 | 99.71 | 5641 |
| 231 13:09:27 | 73.36 | 5642 |
| 231 14:54:21 | 47.01 | 5643 |
| 231 16:39:15 | 20.66 | 5644 |
| 231 18:24:09 | -5.69 | 5645 |
| 231 20:09:02 | -32.04 | 5646 |
| 231 21:53:56 | -58.39 | 5647 |
| 231 23:38:50 | -84.74 | 5648 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|----------|--------|--------------|----------------------------|--------|--------------|----------|----------------------------|-----|----------|--------|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | day | hr mn sc | deg dg |
| day | hr mn sc | deg dg | day | hr mn sc | deg dg | day | hr mn sc | deg dg | day | hr mn sc | deg dg |
| 228 01:28:29 | -117.20 | 29244 | 228 00:46:00 | -80.94 | 20311 | 228 00:08:04 | -150.03 | 9740 | | | |
| 228 03:10:30 | -142.70 | 29245 | 228 02:27:14 | -106.26 | 20312 | 228 01:50:08 | -175.54 | 9741 | | | |
| 228 04:52:30 | -168.20 | 29246 | 228 04:08:27 | -131.56 | 20313 | 228 03:32:13 | 158.94 | 9742 | | | |
| 228 06:34:31 | 166.30 | 29247 | 228 05:49:40 | -156.86 | 20314 | 228 05:14:18 | 133.41 | 9743 | | | |
| 228 08:16:31 | 140.81 | 29248 | 228 07:30:53 | 177.83 | 20315 | 228 06:56:23 | 107.89 | 9744 | | | |
| 228 09:58:32 | 115.30 | 29249 | 228 09:12:06 | 152.53 | 20316 | 228 08:38:27 | 82.38 | 9745 | | | |
| 228 11:40:32 | 89.81 | 29250 | 228 10:53:20 | 127.21 | 20317 | 228 10:20:32 | 56.86 | 9746 | | | |
| 228 13:22:33 | 64.30 | 29251 | 228 12:34:33 | 101.91 | 20318 | 228 12:02:37 | 31.34 | 9747 | | | |
| 228 15:04:33 | 38.81 | 29252 | 228 14:15:46 | 76.61 | 20319 | 228 13:44:42 | 5.82 | 9748 | | | |
| 228 16:46:34 | 13.30 | 29253 | 228 15:56:59 | 51.30 | 20320 | 228 15:26:47 | -19.70 | 9749 | | | |
| 228 18:28:34 | -12.19 | 29254 | 228 17:38:12 | 26.00 | 20321 | 228 17:08:51 | -45.21 | 9750 | | | |
| 228 20:10:35 | -37.70 | 29255 | 228 19:19:26 | .69 | 20322 | 228 18:50:56 | -70.73 | 9751 | | | |
| 228 21:52:35 | -63.19 | 29256 | 228 21:00:39 | -24.62 | 20323 | 228 20:33:01 | -96.26 | 9752 | | | |
| 228 23:34:36 | -88.70 | 29257 | 228 22:41:52 | -49.92 | 20324 | 228 22:15:06 | -121.78 | 9753 | | | |
| | | | 228 23:57:11 | -147.30 | 20324 | 228 23:57:11 | -147.30 | 9754 | | | |
| 229 01:16:36 | -114.19 | 29258 | 229 00:23:05 | -75.22 | 20325 | 229 01:39:15 | -172.81 | 9755 | | | |
| 229 02:58:37 | -139.69 | 29259 | 229 02:04:18 | -100.53 | 20326 | 229 03:21:20 | 161.67 | 9756 | | | |
| 229 04:40:37 | -165.19 | 29260 | 229 03:45:32 | -125.84 | 20327 | 229 05:03:25 | 136.15 | 9757 | | | |
| 229 06:22:38 | 169.31 | 29261 | 229 05:26:45 | -151.14 | 20328 | 229 06:45:30 | 110.63 | 9758 | | | |
| 229 08:04:38 | 143.81 | 29262 | 229 07:07:58 | -176.45 | 20329 | 229 08:27:34 | 85.12 | 9759 | | | |
| 229 09:46:39 | 118.31 | 29263 | 229 08:49:11 | 158.25 | 20330 | 229 10:09:39 | 59.60 | 9760 | | | |
| 229 11:28:39 | 92.82 | 29264 | 229 10:30:24 | 132.95 | 20331 | 229 11:51:44 | 34.07 | 9761 | | | |
| 229 13:10:40 | 67.31 | 29265 | 229 12:11:38 | 107.63 | 20332 | 229 13:33:49 | 8.55 | 9762 | | | |
| 229 14:52:40 | 41.82 | 29266 | 229 13:52:51 | 82.33 | 20333 | 229 15:15:54 | -16.97 | 9763 | | | |
| 229 16:34:41 | 16.31 | 29267 | 229 15:34:04 | 57.02 | 20334 | 229 16:57:58 | -42.48 | 9764 | | | |
| 229 18:16:42 | -9.20 | 29268 | 229 17:15:17 | 31.72 | 20335 | 229 18:40:03 | -68.00 | 9765 | | | |
| 229 19:58:42 | -34.69 | 29269 | 229 18:56:30 | 6.42 | 20336 | 229 20:22:08 | -93.52 | 9766 | | | |
| 229 21:40:43 | -60.20 | 29270 | 229 20:37:43 | -18.88 | 20337 | 229 22:04:13 | -119.04 | 9767 | | | |
| 229 23:22:43 | -85.69 | 29271 | 229 22:18:57 | -44.20 | 20338 | 229 23:46:18 | -144.57 | 9768 | | | |
| 230 01:04:44 | -111.19 | 29272 | 230 00:00:10 | -69.30 | 20339 | 230 01:28:22 | -170.07 | 9769 | | | |
| 230 02:46:44 | -136.69 | 29273 | 230 01:41:23 | -94.81 | 20340 | 230 03:10:27 | 164.40 | 9770 | | | |
| 230 04:28:45 | -162.19 | 29274 | 230 03:22:36 | -120.11 | 20341 | 230 04:52:32 | 138.88 | 9771 | | | |
| 230 06:10:45 | 172.31 | 29275 | 230 05:03:49 | -145.41 | 20342 | 230 06:34:37 | 113.36 | 9772 | | | |
| 230 07:52:46 | 146.81 | 29276 | 230 06:45:03 | -170.73 | 20343 | 230 08:16:41 | 87.85 | 9773 | | | |
| 230 09:34:46 | 121.32 | 29277 | 230 08:26:16 | 163.97 | 20344 | 230 09:58:46 | 62.33 | 9774 | | | |
| 230 11:16:47 | 95.81 | 29278 | 230 10:07:29 | 138.67 | 20345 | 230 11:40:51 | 36.81 | 9775 | | | |
| 230 12:58:47 | 70.32 | 29279 | 230 11:48:42 | 113.36 | 20346 | 230 13:22:56 | 11.29 | 9776 | | | |
| 230 14:40:48 | 44.81 | 29280 | 230 13:29:55 | 88.06 | 20347 | 230 15:05:01 | -14.24 | 9777 | | | |
| 230 16:22:48 | 19.32 | 29281 | 230 15:11:09 | 62.74 | 20348 | 230 16:47:05 | -39.74 | 9778 | | | |
| 230 18:04:49 | -6.19 | 29282 | 230 16:52:22 | 37.44 | 20349 | 230 18:29:10 | -65.27 | 9779 | | | |
| 230 19:46:49 | -31.68 | 29283 | 230 18:33:35 | 12.14 | 20350 | 230 20:11:15 | -90.79 | 9780 | | | |
| 230 21:28:50 | -57.19 | 29284 | 230 20:14:48 | -13.17 | 20351 | 230 21:53:20 | -116.31 | 9781 | | | |
| 230 23:10:50 | -82.68 | 29285 | 230 21:56:01 | -38.47 | 20352 | 230 23:35:25 | -141.83 | 9782 | | | |
| | | | 230 23:37:15 | -63.78 | 20353 | | | | | | |
| 231 00:52:31 | -108.19 | 29286 | 231 01:18:28 | -89.09 | 20354 | 231 01:17:29 | -167.34 | 9783 | | | |
| 231 02:34:51 | -133.68 | 29287 | 231 02:59:41 | -114.39 | 20355 | 231 02:59:34 | 167.14 | 9784 | | | |
| 231 04:16:52 | -159.18 | 29288 | 231 04:40:54 | -139.69 | 20356 | 231 04:41:39 | 141.62 | 9785 | | | |
| 231 05:58:52 | 175.32 | 29289 | 231 06:22:07 | -165.00 | 20357 | 231 06:23:44 | 116.09 | 9786 | | | |
| 231 07:40:53 | 149.82 | 29290 | 231 08:03:20 | 169.70 | 20358 | 231 08:05:48 | 90.59 | 9787 | | | |
| 231 09:22:53 | 124.32 | 29291 | 231 09:44:34 | 144.38 | 20359 | 231 09:47:53 | 65.06 | 9788 | | | |
| 231 11:04:54 | 98.82 | 29292 | 231 11:25:47 | 119.08 | 20360 | 231 11:29:58 | 39.54 | 9789 | | | |
| 231 12:46:54 | 73.32 | 29293 | 231 13:07:00 | 93.78 | 20361 | 231 13:12:03 | 14.02 | 9790 | | | |
| 231 14:28:55 | 47.82 | 29294 | 231 14:48:13 | 68.48 | 20362 | 231 14:54:08 | -11.50 | 9791 | | | |
| 231 16:10:55 | 22.33 | 29295 | 231 16:29:26 | 43.17 | 20363 | 231 16:36:12 | -37.01 | 9792 | | | |
| 231 17:52:56 | -3.18 | 29296 | 231 18:10:40 | 17.86 | 20364 | 231 18:18:17 | -62.53 | 9793 | | | |
| 231 19:34:56 | -28.67 | 29297 | 231 19:51:53 | -7.45 | 20365 | 231 20:00:22 | -88.05 | 9794 | | | |
| 231 21:16:57 | -54.18 | 29298 | 231 21:33:06 | -32.75 | 20366 | 231 21:42:27 | -113.58 | 9795 | | | |
| 231 22:58:57 | -79.67 | 29299 | 231 23:14:19 | -58.05 | 20367 | 231 23:24:32 | -139.10 | 9796 | | | |

SATELLITE C3

Ascending Node Predictions

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 232 00:42:20 | 36.62 | 30883 |
| 232 02:27:15 | 10.27 | 30884 |
| 232 04:12:10 | -16.08 | 30885 |
| 232 05:57:05 | -42.44 | 30886 |
| 232 07:41:59 | -68.79 | 30887 |
| 232 09:26:54 | -95.15 | 30888 |
| 232 11:11:49 | -121.50 | 30889 |
| 232 12:56:44 | -147.85 | 30890 |
| 232 14:41:39 | -174.21 | 30891 |
| 232 16:26:34 | 159.44 | 30892 |
| 232 18:11:29 | 133.08 | 30893 |
| 232 19:56:23 | 106.73 | 30894 |
| 232 21:41:18 | 80.37 | 30895 |
| 232 23:26:13 | 54.02 | 30896 |

SATELLITE C4

Ascending Node Predictions

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 232 01:23:44 | -111.09 | 5649 |
| 232 03:08:38 | -137.43 | 5650 |
| 232 04:53:31 | -163.79 | 5651 |
| 232 06:38:25 | 169.87 | 5652 |
| 232 08:23:19 | 143.52 | 5653 |
| 232 10:08:13 | 117.17 | 5654 |
| 232 11:53:06 | 90.82 | 5655 |
| 232 13:38:00 | 64.47 | 5656 |
| 232 15:22:54 | 38.12 | 5657 |
| 232 17:07:48 | 11.77 | 5658 |
| 232 18:52:42 | -14.58 | 5659 |
| 232 20:37:35 | -40.93 | 5660 |
| 232 22:22:29 | -67.28 | 5661 |

| | | |
|--------------|---------|-------|
| 233 01:11:08 | 27.67 | 30897 |
| 233 02:56:03 | 1.31 | 30898 |
| 233 04:40:58 | -25.04 | 30899 |
| 233 06:25:52 | -51.40 | 30900 |
| 233 08:10:47 | -77.75 | 30901 |
| 233 09:55:42 | -104.10 | 30902 |
| 233 11:40:37 | -130.46 | 30903 |
| 233 13:25:32 | -156.81 | 30904 |
| 233 15:10:27 | 176.84 | 30905 |
| 233 16:55:22 | 150.48 | 30906 |
| 233 18:40:16 | 124.13 | 30907 |
| 233 20:25:11 | 97.77 | 30908 |
| 233 22:10:06 | 71.42 | 30909 |
| 233 23:55:01 | 45.07 | 30910 |

| | | |
|--------------|---------|------|
| 233 00:07:23 | -93.63 | 5662 |
| 233 01:52:17 | -119.98 | 5663 |
| 233 03:37:10 | -146.33 | 5664 |
| 233 05:22:04 | -172.68 | 5665 |
| 233 07:06:58 | 160.97 | 5666 |
| 233 08:51:52 | 134.62 | 5667 |
| 233 10:36:45 | 108.27 | 5668 |
| 233 12:21:39 | 81.92 | 5669 |
| 233 14:06:33 | 55.57 | 5670 |
| 233 15:51:27 | 29.22 | 5671 |
| 233 17:36:21 | 2.88 | 5672 |
| 233 19:21:14 | -23.48 | 5673 |
| 233 21:06:08 | -49.82 | 5674 |
| 233 22:51:02 | -76.17 | 5675 |

| | | |
|--------------|---------|-------|
| 234 01:39:56 | 18.71 | 30911 |
| 234 03:24:51 | -7.64 | 30912 |
| 234 05:09:45 | -34.00 | 30913 |
| 234 06:54:40 | -60.35 | 30914 |
| 234 08:39:35 | -86.71 | 30915 |
| 234 10:24:30 | -113.06 | 30916 |
| 234 12:09:25 | -139.41 | 30917 |
| 234 13:54:20 | -165.77 | 30918 |
| 234 15:39:14 | 167.88 | 30919 |
| 234 17:24:09 | 141.52 | 30920 |
| 234 19:09:04 | 115.17 | 30921 |
| 234 20:53:59 | 88.82 | 30922 |
| 234 22:38:54 | 62.46 | 30923 |

| | | |
|--------------|---------|------|
| 234 00:35:56 | -102.52 | 5676 |
| 234 02:20:49 | -128.87 | 5677 |
| 234 04:05:43 | -155.22 | 5678 |
| 234 05:50:37 | 178.43 | 5679 |
| 234 07:35:31 | 152.08 | 5680 |
| 234 09:20:25 | 125.73 | 5681 |
| 234 11:05:18 | 99.38 | 5682 |
| 234 12:50:12 | 73.03 | 5683 |
| 234 14:35:06 | 46.68 | 5684 |
| 234 16:20:00 | 20.33 | 5685 |
| 234 18:04:53 | -6.02 | 5686 |
| 234 19:49:47 | -32.37 | 5687 |
| 234 21:34:41 | -58.72 | 5688 |
| 234 23:19:35 | -85.07 | 5689 |

| | | |
|--------------|---------|-------|
| 235 00:23:49 | 36.11 | 30924 |
| 235 02:08:44 | 9.76 | 30925 |
| 235 03:53:38 | -16.60 | 30926 |
| 235 05:38:33 | -42.95 | 30927 |
| 235 07:23:28 | -69.31 | 30928 |
| 235 09:08:23 | -95.66 | 30929 |
| 235 10:53:18 | -122.01 | 30930 |
| 235 12:38:13 | -148.37 | 30931 |
| 235 14:23:07 | -174.72 | 30932 |
| 235 16:08:02 | 158.92 | 30933 |
| 235 17:52:57 | 132.57 | 30934 |
| 235 19:37:52 | 106.21 | 30935 |
| 235 21:22:47 | 79.86 | 30936 |
| 235 23:07:42 | 53.51 | 30937 |

| | | |
|--------------|---------|------|
| 235 01:04:28 | -111.42 | 5690 |
| 235 02:49:22 | -137.77 | 5691 |
| 235 04:34:16 | -164.12 | 5692 |
| 235 06:19:10 | 169.54 | 5693 |
| 235 08:04:04 | 143.19 | 5694 |
| 235 09:48:57 | 116.83 | 5695 |
| 235 11:33:51 | 90.49 | 5696 |
| 235 13:18:45 | 64.14 | 5697 |
| 235 15:03:39 | 37.79 | 5698 |
| 235 16:48:32 | 11.44 | 5699 |
| 235 18:33:26 | -14.91 | 5700 |
| 235 20:18:20 | -41.26 | 5701 |
| 235 22:03:14 | -67.61 | 5702 |
| 235 23:48:08 | -93.96 | 5703 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 232 | 00:40:58 | -105.18 | 29300 |
| 232 | 02:22:58 | -130.67 | 29301 |
| 232 | 04:04:59 | -156.18 | 29302 |
| 232 | 05:46:59 | 178.33 | 29303 |
| 232 | 07:29:00 | 152.82 | 29304 |
| 232 | 09:11:00 | 127.33 | 29305 |
| 232 | 10:53:01 | 101.83 | 29306 |
| 232 | 12:35:01 | 76.33 | 29307 |
| 232 | 14:17:02 | 50.83 | 29308 |
| 232 | 15:59:02 | 25.33 | 29309 |
| 232 | 17:41:03 | -17 | 29310 |
| 232 | 19:23:03 | -25.67 | 29311 |
| 232 | 21:05:04 | -51.17 | 29312 |
| 232 | 22:47:04 | -76.66 | 29313 |

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 232 | 00:55:32 | -83.36 | 20368 |
| 232 | 02:36:46 | -108.67 | 20369 |
| 232 | 04:17:59 | -133.97 | 20370 |
| 232 | 05:59:12 | -159.28 | 20371 |
| 232 | 07:40:25 | 175.42 | 20372 |
| 232 | 09:21:38 | 150.12 | 20373 |
| 232 | 11:02:52 | 124.80 | 20374 |
| 232 | 12:44:05 | 99.50 | 20375 |
| 232 | 14:25:18 | 74.19 | 20376 |
| 232 | 16:06:31 | 48.89 | 20377 |
| 232 | 17:47:44 | 23.59 | 20378 |
| 232 | 19:28:57 | -1.71 | 20379 |
| 232 | 21:10:11 | -27.03 | 20380 |
| 232 | 22:51:24 | -52.33 | 20381 |

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | | |
|-----|----------|---------|------|
| 232 | 01:06:36 | -164.61 | 9797 |
| 232 | 02:48:41 | 169.87 | 9798 |
| 232 | 04:30:46 | 144.35 | 9799 |
| 232 | 06:12:51 | 118.83 | 9800 |
| 232 | 07:54:55 | 93.32 | 9801 |
| 232 | 09:37:00 | 67.80 | 9802 |
| 232 | 11:19:05 | 42.28 | 9803 |
| 232 | 13:01:10 | 16.75 | 9804 |
| 232 | 14:43:15 | -8.77 | 9805 |
| 232 | 16:25:19 | -34.28 | 9806 |
| 232 | 18:07:24 | -59.80 | 9807 |
| 232 | 19:49:29 | -85.32 | 9808 |
| 232 | 21:31:34 | -110.84 | 9809 |
| 232 | 23:13:38 | -136.35 | 9810 |

| | | | |
|-----|----------|---------|-------|
| 233 | 00:29:05 | -102.17 | 29314 |
| 233 | 02:11:05 | -127.66 | 29315 |
| 233 | 03:53:06 | -153.17 | 29316 |
| 233 | 05:35:06 | -178.66 | 29317 |
| 233 | 07:17:07 | 155.83 | 29318 |
| 233 | 08:59:07 | 130.34 | 29319 |
| 233 | 10:41:08 | 104.83 | 29320 |
| 233 | 12:23:08 | 79.34 | 29321 |
| 233 | 14:05:09 | 53.83 | 29322 |
| 233 | 15:47:09 | 28.34 | 29323 |
| 233 | 17:29:10 | 2.84 | 29324 |
| 233 | 19:11:10 | -22.66 | 29325 |
| 233 | 20:53:11 | -48.16 | 29326 |
| 233 | 22:35:11 | -73.66 | 29327 |

| | | | |
|-----|----------|---------|-------|
| 233 | 00:32:37 | -77.64 | 20382 |
| 233 | 02:13:50 | -102.94 | 20383 |
| 233 | 03:55:03 | -128.24 | 20384 |
| 233 | 05:36:17 | -153.56 | 20385 |
| 233 | 07:17:30 | -178.86 | 20386 |
| 233 | 08:58:43 | 155.84 | 20387 |
| 233 | 10:39:56 | 130.53 | 20388 |
| 233 | 12:21:09 | 105.23 | 20389 |
| 233 | 14:02:23 | 79.91 | 20390 |
| 233 | 15:43:36 | 54.61 | 20391 |
| 233 | 17:24:49 | 29.31 | 20392 |
| 233 | 19:06:02 | 4.00 | 20393 |
| 233 | 20:47:15 | -21.30 | 20394 |
| 233 | 22:28:29 | -46.61 | 20395 |

| | | | |
|-----|----------|---------|------|
| 233 | 00:55:43 | -161.87 | 9811 |
| 233 | 02:37:48 | 172.61 | 9812 |
| 233 | 04:19:53 | 147.08 | 9813 |
| 233 | 06:01:58 | 121.56 | 9814 |
| 233 | 07:44:02 | 96.05 | 9815 |
| 233 | 09:26:07 | 70.53 | 9816 |
| 233 | 11:08:12 | 45.01 | 9817 |
| 233 | 12:50:17 | 19.49 | 9818 |
| 233 | 14:32:22 | -6.03 | 9819 |
| 233 | 16:14:26 | -31.54 | 9820 |
| 233 | 17:56:31 | -57.06 | 9821 |
| 233 | 19:38:36 | -82.59 | 9822 |
| 233 | 21:20:41 | -106.11 | 9823 |
| 233 | 23:02:45 | -133.62 | 9824 |

| | | | |
|-----|----------|---------|-------|
| 234 | 00:17:12 | -99.16 | 29328 |
| 234 | 01:59:12 | -124.65 | 29329 |
| 234 | 03:41:13 | -150.16 | 29330 |
| 234 | 05:23:13 | -175.65 | 29331 |
| 234 | 07:05:14 | 158.84 | 29332 |
| 234 | 08:47:14 | 133.35 | 29333 |
| 234 | 10:29:15 | 107.84 | 29334 |
| 234 | 12:11:15 | 82.35 | 29335 |
| 234 | 13:53:16 | 56.84 | 29336 |
| 234 | 15:35:17 | 31.34 | 29337 |
| 234 | 17:17:17 | 5.84 | 29338 |
| 234 | 18:59:18 | -19.66 | 29339 |
| 234 | 20:41:18 | -45.16 | 29340 |
| 234 | 22:23:19 | -70.66 | 29341 |

| | | | |
|-----|----------|---------|-------|
| 234 | 00:09:42 | -71.92 | 20396 |
| 234 | 01:50:55 | -97.22 | 20397 |
| 234 | 03:32:08 | -122.52 | 20398 |
| 234 | 05:13:21 | -147.83 | 20399 |
| 234 | 06:54:34 | -173.13 | 20400 |
| 234 | 08:35:48 | 161.55 | 20401 |
| 234 | 10:17:01 | 136.25 | 20402 |
| 234 | 11:58:14 | 110.95 | 20403 |
| 234 | 13:39:27 | 85.65 | 20404 |
| 234 | 15:20:40 | 60.34 | 20405 |
| 234 | 17:01:54 | 35.03 | 20406 |
| 234 | 18:43:07 | 9.72 | 20407 |
| 234 | 20:24:20 | -15.58 | 20408 |
| 234 | 22:05:33 | -40.88 | 20409 |
| 234 | 23:46:46 | -66.19 | 20410 |

| | | | |
|-----|----------|---------|------|
| 234 | 00:44:50 | -159.14 | 9825 |
| 234 | 02:26:55 | 175.34 | 9826 |
| 234 | 04:09:00 | 149.82 | 9827 |
| 234 | 05:51:05 | 124.30 | 9828 |
| 234 | 07:33:09 | 98.79 | 9829 |
| 234 | 09:15:14 | 73.27 | 9830 |
| 234 | 10:57:19 | 47.74 | 9831 |
| 234 | 12:39:24 | 22.22 | 9832 |
| 234 | 14:21:29 | -3.30 | 9833 |
| 234 | 16:03:33 | -28.81 | 9834 |
| 234 | 17:45:38 | -54.33 | 9835 |
| 234 | 19:27:43 | -79.85 | 9836 |
| 234 | 21:09:48 | -105.37 | 9837 |
| 234 | 22:51:52 | -130.88 | 9838 |

| | | | |
|-----|----------|---------|-------|
| 235 | 00:03:19 | -96.15 | 29342 |
| 235 | 01:47:20 | -121.66 | 29343 |
| 235 | 03:29:20 | -147.15 | 29344 |
| 235 | 05:11:21 | -172.66 | 29345 |
| 235 | 06:53:21 | 161.85 | 29346 |
| 235 | 08:35:22 | 136.34 | 29347 |
| 235 | 10:17:22 | 110.85 | 29348 |
| 235 | 11:59:23 | 85.34 | 29349 |
| 235 | 13:41:23 | 59.85 | 29350 |
| 235 | 15:23:24 | 34.34 | 29351 |
| 235 | 17:05:24 | 8.85 | 29352 |
| 235 | 18:47:25 | -16.65 | 29353 |
| 235 | 20:29:25 | -42.15 | 29354 |
| 235 | 22:11:26 | -67.65 | 29355 |
| 235 | 23:53:26 | -93.15 | 29356 |

| | | | |
|-----|----------|---------|-------|
| 235 | 01:28:00 | -91.50 | 20411 |
| 235 | 03:09:13 | -116.80 | 20412 |
| 235 | 04:50:26 | -142.11 | 20413 |
| 235 | 06:31:39 | -167.41 | 20414 |
| 235 | 08:12:52 | 167.29 | 20415 |
| 235 | 09:54:06 | 141.97 | 20416 |
| 235 | 11:35:19 | 116.67 | 20417 |
| 235 | 13:16:32 | 91.36 | 20418 |
| 235 | 14:57:45 | 66.06 | 20419 |
| 235 | 16:38:58 | 40.76 | 20420 |
| 235 | 18:20:11 | 15.46 | 20421 |
| 235 | 20:01:25 | -9.86 | 20422 |
| 235 | 21:42:38 | -35.16 | 20423 |
| 235 | 23:23:51 | -60.47 | 20424 |

| | | | |
|-----|----------|---------|------|
| 235 | 00:33:57 | -136.40 | 9839 |
| 235 | 02:16:02 | 178.07 | 9840 |
| 235 | 03:58:07 | 152.55 | 9841 |
| 235 | 05:40:12 | 127.03 | 9842 |
| 235 | 07:22:16 | 101.52 | 9843 |
| 235 | 09:04:21 | 76.00 | 9844 |
| 235 | 10:46:26 | 50.48 | 9845 |
| 235 | 12:28:31 | 24.96 | 9846 |
| 235 | 14:10:35 | -55 | 9847 |
| 235 | 15:52:40 | -26.07 | 9848 |
| 235 | 17:34:45 | -51.60 | 9849 |
| 235 | 19:16:50 | -77.12 | 9850 |
| 235 | 20:58:55 | -102.64 | 9851 |
| 235 | 22:40:59 | -128.15 | 9852 |

SATELLITE C3

Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 236 00:52:37 | 27.15 | 30938 |
| 236 02:37:31 | .80 | 30939 |
| 236 04:22:26 | -25.56 | 30940 |
| 236 06:07:21 | -51.91 | 30941 |
| 236 07:52:16 | -78.26 | 30942 |
| 236 09:37:11 | -104.62 | 30943 |
| 236 11:22:06 | -130.97 | 30944 |
| 236 13:07:00 | -157.33 | 30945 |
| 236 14:51:55 | 176.32 | 30946 |
| 236 16:36:50 | 149.97 | 30947 |
| 236 18:21:45 | 123.61 | 30948 |
| 236 20:06:40 | 97.26 | 30949 |
| 236 21:51:35 | 70.91 | 30950 |
| 236 23:36:29 | 44.55 | 30951 |

SATELLITE C4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 236 01:33:01 | -120.31 | 5704 |
| 236 03:17:55 | -146.66 | 5705 |
| 236 05:02:49 | -173.01 | 5706 |
| 236 06:47:43 | 160.64 | 5707 |
| 236 08:32:36 | 134.29 | 5708 |
| 236 10:17:30 | 107.94 | 5709 |
| 236 12:02:24 | 81.59 | 5710 |
| 236 13:47:18 | 55.24 | 5711 |
| 236 15:32:12 | 28.90 | 5712 |
| 236 17:17:05 | 2.54 | 5713 |
| 236 19:01:59 | -23.81 | 5714 |
| 236 20:46:53 | -50.15 | 5715 |
| 236 22:31:47 | -76.50 | 5716 |

| | | |
|--------------|---------|-------|
| 237 01:21:24 | 18.20 | 30952 |
| 237 03:06:19 | -8.16 | 30953 |
| 237 04:51:14 | -34.51 | 30954 |
| 237 06:36:09 | -60.86 | 30955 |
| 237 08:21:04 | -87.22 | 30956 |
| 237 10:05:59 | -113.57 | 30957 |
| 237 11:50:53 | -139.93 | 30958 |
| 237 13:35:48 | -166.28 | 30959 |
| 237 15:20:43 | 167.36 | 30960 |
| 237 17:05:38 | 141.01 | 30961 |
| 237 18:50:33 | 114.66 | 30962 |
| 237 20:35:28 | 88.30 | 30963 |
| 237 22:20:22 | 61.95 | 30964 |

| | | |
|--------------|---------|------|
| 237 00:16:40 | -102.86 | 5717 |
| 237 02:01:34 | -129.20 | 5718 |
| 237 03:46:28 | -155.55 | 5719 |
| 237 05:31:22 | 178.10 | 5720 |
| 237 07:16:16 | 151.75 | 5721 |
| 237 09:01:09 | 125.40 | 5722 |
| 237 10:46:03 | 99.05 | 5723 |
| 237 12:30:57 | 72.70 | 5724 |
| 237 14:15:51 | 46.35 | 5725 |
| 237 16:00:44 | 20.00 | 5726 |
| 237 17:45:38 | -6.35 | 5727 |
| 237 19:30:32 | -32.70 | 5728 |
| 237 21:15:26 | -59.05 | 5729 |
| 237 23:00:19 | -85.40 | 5730 |

| | | |
|--------------|---------|-------|
| 238 00:05:17 | 35.59 | 30965 |
| 238 01:50:12 | 9.24 | 30966 |
| 238 03:35:07 | -17.11 | 30967 |
| 238 05:20:02 | -43.47 | 30968 |
| 238 07:04:57 | -69.82 | 30969 |
| 238 08:49:52 | -96.17 | 30970 |
| 238 10:34:46 | -122.53 | 30971 |
| 238 12:19:41 | -148.88 | 30972 |
| 238 14:04:36 | -175.24 | 30973 |
| 238 15:49:31 | 158.41 | 30974 |
| 238 17:34:26 | 132.06 | 30975 |
| 238 19:19:21 | 105.70 | 30976 |
| 238 21:04:15 | 79.35 | 30977 |
| 238 22:49:10 | 52.99 | 30978 |

| | | |
|--------------|---------|------|
| 238 00:45:13 | -111.75 | 5731 |
| 238 02:30:07 | -138.10 | 5732 |
| 238 04:15:01 | -164.45 | 5733 |
| 238 05:59:55 | 169.21 | 5734 |
| 238 07:44:48 | 142.85 | 5735 |
| 238 09:29:42 | 116.50 | 5736 |
| 238 11:14:36 | 90.16 | 5737 |
| 238 12:59:30 | 63.81 | 5738 |
| 238 14:44:23 | 37.45 | 5739 |
| 238 16:29:17 | 11.11 | 5740 |
| 238 18:14:11 | -15.24 | 5741 |
| 238 19:59:05 | -41.59 | 5742 |
| 238 21:43:59 | -67.94 | 5743 |
| 238 23:28:52 | -94.29 | 5744 |

| | | |
|--------------|---------|-------|
| 239 00:34:05 | 26.64 | 30979 |
| 239 02:19:00 | .28 | 30980 |
| 239 04:03:55 | -26.07 | 30981 |
| 239 05:48:50 | -52.42 | 30982 |
| 239 07:33:44 | -78.78 | 30983 |
| 239 09:18:39 | -105.13 | 30984 |
| 239 11:03:34 | -131.49 | 30985 |
| 239 12:48:29 | -157.84 | 30986 |
| 239 14:33:24 | 175.81 | 30987 |
| 239 16:18:19 | 149.45 | 30988 |
| 239 18:03:13 | 123.10 | 30989 |
| 239 19:48:08 | 96.74 | 30990 |
| 239 21:33:03 | 70.39 | 30991 |
| 239 23:17:58 | 44.04 | 30992 |

| | | |
|--------------|---------|------|
| 239 01:13:46 | -120.64 | 5745 |
| 239 02:58:40 | -146.99 | 5746 |
| 239 04:43:34 | -173.34 | 5747 |
| 239 06:28:27 | 160.31 | 5748 |
| 239 08:13:21 | 133.96 | 5749 |
| 239 09:58:15 | 107.61 | 5750 |
| 239 11:43:09 | 81.26 | 5751 |
| 239 13:28:03 | 54.91 | 5752 |
| 239 15:12:56 | 28.56 | 5753 |
| 239 16:57:50 | 2.21 | 5754 |
| 239 18:42:44 | -24.14 | 5755 |
| 239 20:27:38 | -50.49 | 5756 |
| 239 22:12:31 | -76.84 | 5757 |
| 239 23:57:25 | -103.19 | 5758 |

| SATELLITE S2 | | | | | | | SATELLITE S3 | | | | | | | SATELLITE S4 | | | | | | |
|----------------------------|---------|-------|-------|--------------|---------|-------|----------------------------|--------------|---------|------------|---|------|-------|----------------------------|----|----|----|-----|----|------------|
| Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | |
| TIME (GMT) | E | LONG | ORBIT | day | hr | mn | sc | deg | dg | TIME (GMT) | E | LONG | ORBIT | day | hr | mn | sc | deg | dg | TIME (GMT) |
| 236 01:35:27 | -118.65 | 29357 | | 236 01:05:04 | -85.77 | 20425 | | 236 00:23:04 | -153.67 | 9853 | | | | | | | | | | |
| 236 03:17:27 | -144.15 | 29358 | | 236 02:46:17 | -111.07 | 20426 | | 236 02:05:09 | -179.19 | 9854 | | | | | | | | | | |
| 236 04:59:28 | -169.65 | 29359 | | 236 04:27:31 | -136.39 | 20427 | | 236 03:47:14 | 155.29 | 9855 | | | | | | | | | | |
| 236 06:41:28 | 164.86 | 29360 | | 236 06:08:44 | -161.69 | 20428 | | 236 05:29:19 | 129.76 | 9856 | | | | | | | | | | |
| 236 08:23:29 | 139.35 | 29361 | | 236 07:49:57 | 173.01 | 20429 | | 236 07:11:23 | 104.26 | 9857 | | | | | | | | | | |
| 236 10:05:29 | 113.86 | 29362 | | 236 09:31:10 | 147.70 | 20430 | | 236 08:53:28 | 78.73 | 9858 | | | | | | | | | | |
| 236 11:47:30 | 88.35 | 29363 | | 236 11:12:23 | 122.40 | 20431 | | 236 10:35:33 | 53.21 | 9859 | | | | | | | | | | |
| 236 13:29:30 | 62.86 | 29364 | | 236 12:53:37 | 97.08 | 20432 | | 236 12:17:38 | 27.69 | 9860 | | | | | | | | | | |
| 236 15:11:31 | 37.35 | 29365 | | 236 14:34:50 | 71.78 | 20433 | | 236 13:59:42 | 2.18 | 9861 | | | | | | | | | | |
| 236 16:53:31 | 11.86 | 29366 | | 236 16:16:03 | 46.48 | 20434 | | 236 15:41:47 | -23.34 | 9862 | | | | | | | | | | |
| 236 18:35:32 | -13.65 | 29367 | | 236 17:57:16 | 21.17 | 20435 | | 236 17:23:52 | -48.86 | 9863 | | | | | | | | | | |
| 236 20:17:32 | -39.14 | 29368 | | 236 19:38:29 | -4.13 | 20436 | | 236 19:05:57 | -74.38 | 9864 | | | | | | | | | | |
| 236 21:59:33 | -64.65 | 29369 | | 236 21:19:42 | -29.43 | 20437 | | 236 20:48:02 | -99.91 | 9865 | | | | | | | | | | |
| 236 23:41:33 | -90.14 | 29370 | | 236 23:00:56 | -54.75 | 20438 | | 236 22:30:06 | -125.41 | 9866 | | | | | | | | | | |
| 237 01:23:34 | -115.64 | 29371 | | 237 00:42:09 | -80.05 | 20439 | | 237 00:12:11 | -150.94 | 9867 | | | | | | | | | | |
| 237 03:05:34 | -141.14 | 29372 | | 237 02:23:22 | -105.35 | 20440 | | 237 01:54:16 | -176.46 | 9868 | | | | | | | | | | |
| 237 04:47:35 | -166.64 | 29373 | | 237 04:04:35 | -130.66 | 20441 | | 237 03:36:21 | 158.02 | 9869 | | | | | | | | | | |
| 237 06:29:35 | 167.86 | 29374 | | 237 05:45:48 | -155.96 | 20442 | | 237 05:18:25 | 132.51 | 9870 | | | | | | | | | | |
| 237 08:11:36 | 142.36 | 29375 | | 237 07:27:02 | 178.72 | 20443 | | 237 07:00:30 | 106.99 | 9871 | | | | | | | | | | |
| 237 09:53:36 | 116.87 | 29376 | | 237 09:08:15 | 153.42 | 20444 | | 237 08:42:35 | 81.47 | 9872 | | | | | | | | | | |
| 237 11:35:37 | 91.36 | 29377 | | 237 10:49:28 | 128.12 | 20445 | | 237 10:24:40 | 55.95 | 9873 | | | | | | | | | | |
| 237 13:17:37 | 65.87 | 29378 | | 237 12:30:41 | 102.82 | 20446 | | 237 12:06:45 | 30.42 | 9874 | | | | | | | | | | |
| 237 14:59:38 | 40.36 | 29379 | | 237 14:11:54 | 77.51 | 20447 | | 237 13:48:49 | 4.92 | 9875 | | | | | | | | | | |
| 237 16:41:38 | 14.87 | 29380 | | 237 15:53:08 | 52.20 | 20448 | | 237 15:30:54 | -20.61 | 9876 | | | | | | | | | | |
| 237 18:23:39 | -10.64 | 29381 | | 237 17:34:21 | 26.89 | 20449 | | 237 17:12:59 | -46.13 | 9877 | | | | | | | | | | |
| 237 20:05:39 | -36.13 | 29382 | | 237 19:15:34 | 1.59 | 20450 | | 237 18:55:04 | -71.65 | 9878 | | | | | | | | | | |
| 237 21:47:40 | -61.64 | 29383 | | 237 20:56:47 | -23.71 | 20451 | | 237 20:37:09 | -97.17 | 9879 | | | | | | | | | | |
| 237 23:29:40 | -87.13 | 29384 | | 237 22:38:00 | -49.02 | 20452 | | 237 22:19:13 | -122.68 | 9880 | | | | | | | | | | |
| 238 01:11:41 | -112.64 | 29385 | | 238 00:19:13 | -74.32 | 20453 | | 238 00:01:18 | -148.20 | 9881 | | | | | | | | | | |
| 238 02:53:41 | -138.13 | 29386 | | 238 02:00:27 | -99.63 | 20454 | | 238 01:43:23 | -173.72 | 9882 | | | | | | | | | | |
| 238 04:35:42 | -163.64 | 29387 | | 238 03:41:40 | -124.94 | 20455 | | 238 03:23:28 | 160.75 | 9883 | | | | | | | | | | |
| 238 06:17:42 | 170.87 | 29388 | | 238 05:22:53 | -150.24 | 20456 | | 238 05:07:32 | 135.24 | 9884 | | | | | | | | | | |
| 238 07:59:43 | 145.37 | 29389 | | 238 07:04:06 | -175.54 | 20457 | | 238 06:49:37 | 109.72 | 9885 | | | | | | | | | | |
| 238 09:41:43 | 119.87 | 29390 | | 238 08:45:19 | 159.15 | 20458 | | 238 08:31:42 | 84.20 | 9886 | | | | | | | | | | |
| 238 11:23:44 | 94.37 | 29391 | | 238 10:26:33 | 133.84 | 20459 | | 238 10:13:47 | 58.68 | 9887 | | | | | | | | | | |
| 238 13:05:44 | 68.87 | 29392 | | 238 12:07:46 | 108.53 | 20460 | | 238 11:55:52 | 33.16 | 9888 | | | | | | | | | | |
| 238 14:47:45 | 43.37 | 29393 | | 238 13:48:59 | 83.23 | 20461 | | 238 13:37:56 | 7.65 | 9889 | | | | | | | | | | |
| 238 16:29:45 | 17.88 | 29394 | | 238 15:30:12 | 57.93 | 20462 | | 238 15:20:01 | -17.87 | 9890 | | | | | | | | | | |
| 238 18:11:46 | -7.63 | 29395 | | 238 17:11:25 | 32.62 | 20463 | | 238 17:02:06 | -43.39 | 9891 | | | | | | | | | | |
| 238 19:53:46 | -33.12 | 29396 | | 238 18:52:39 | 7.31 | 20464 | | 238 18:44:11 | -68.92 | 9892 | | | | | | | | | | |
| 238 21:35:47 | -58.63 | 29397 | | 238 20:33:52 | -17.99 | 20465 | | 238 20:26:15 | -94.43 | 9893 | | | | | | | | | | |
| 238 23:17:47 | -84.12 | 29398 | | 238 22:15:05 | -43.30 | 20466 | | 238 22:08:20 | -119.95 | 9894 | | | | | | | | | | |
| | | | | 238 23:56:18 | -68.60 | 20467 | | 238 23:50:25 | -145.47 | 9895 | | | | | | | | | | |
| 239 00:59:48 | -109.63 | 29399 | | 239 01:37:31 | -93.90 | 20468 | | 239 01:32:30 | -170.99 | 9896 | | | | | | | | | | |
| 239 02:41:48 | -135.12 | 29400 | | 239 03:18:44 | -119.21 | 20469 | | 239 03:14:35 | 163.49 | 9897 | | | | | | | | | | |
| 239 04:23:49 | -160.63 | 29401 | | 239 04:59:58 | -144.52 | 20470 | | 239 04:56:39 | 137.98 | 9898 | | | | | | | | | | |
| 239 06:05:49 | 173.88 | 29402 | | 239 06:41:11 | -169.83 | 20471 | | 239 06:38:44 | 112.46 | 9899 | | | | | | | | | | |
| 239 07:47:50 | 148.37 | 29403 | | 239 08:22:24 | 164.87 | 20472 | | 239 08:20:49 | 86.93 | 9900 | | | | | | | | | | |
| 239 09:29:51 | 122.87 | 29404 | | 239 10:03:37 | 139.57 | 20473 | | 239 10:02:54 | 61.41 | 9901 | | | | | | | | | | |
| 239 11:11:51 | 97.37 | 29405 | | 239 11:44:50 | 114.27 | 20474 | | 239 11:44:59 | 35.89 | 9902 | | | | | | | | | | |
| 239 12:53:52 | 71.87 | 29406 | | 239 13:26:04 | 88.95 | 20475 | | 239 13:27:03 | 10.38 | 9903 | | | | | | | | | | |
| 239 14:35:52 | 46.38 | 29407 | | 239 15:07:17 | 63.65 | 20476 | | 239 15:09:08 | -15.14 | 9904 | | | | | | | | | | |
| 239 16:17:53 | 20.87 | 29408 | | 239 16:48:30 | 38.34 | 20477 | | 239 16:51:13 | -40.66 | 9905 | | | | | | | | | | |
| 239 17:59:53 | -4.62 | 29409 | | 239 18:29:43 | 13.04 | 20478 | | 239 18:33:18 | -66.18 | 9906 | | | | | | | | | | |
| 239 19:41:54 | -30.13 | 29410 | | 239 20:10:56 | -12.26 | 20479 | | 239 20:15:22 | -91.69 | 9907 | | | | | | | | | | |
| 239 21:23:54 | -55.62 | 29411 | | 239 21:52:10 | -37.58 | 20480 | | 239 21:57:27 | -117.21 | 9908 | | | | | | | | | | |
| 239 23:05:55 | -81.13 | 29412 | | 239 23:33:23 | -62.88 | 20481 | | 239 23:39:32 | -142.74 | 9909 | | | | | | | | | | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 240 01:02:53 | 17.68 | 30993 |
| 240 02:47:48 | -8.67 | 30994 |
| 240 04:32:43 | -35.02 | 30995 |
| 240 06:17:37 | -61.38 | 30996 |
| 240 08:02:32 | -87.73 | 30997 |
| 240 09:47:27 | -114.09 | 30998 |
| 240 11:32:22 | -140.44 | 30999 |
| 240 13:17:17 | -166.79 | 31000 |
| 240 15:02:12 | 166.85 | 31001 |
| 240 16:47:06 | 140.50 | 31002 |
| 240 18:32:01 | 114.14 | 31003 |
| 240 20:16:56 | 87.79 | 31004 |
| 240 22:01:51 | 61.43 | 31005 |
| 240 23:46:46 | 35.08 | 31006 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 240 01:42:19 | -129.53 | 5759 |
| 240 03:27:13 | -155.88 | 5760 |
| 240 05:12:07 | 177.77 | 5761 |
| 240 06:57:00 | 151.42 | 5762 |
| 240 08:41:54 | 125.07 | 5763 |
| 240 10:26:48 | 98.72 | 5764 |
| 240 12:11:42 | 72.37 | 5765 |
| 240 13:56:35 | 46.02 | 5766 |
| 240 15:41:29 | 19.67 | 5767 |
| 240 17:26:23 | -6.68 | 5768 |
| 240 19:11:17 | -33.03 | 5769 |
| 240 20:56:11 | -59.38 | 5770 |
| 240 22:41:04 | -85.73 | 5771 |

| | | |
|--------------|---------|-------|
| 241 01:31:41 | 8.73 | 31007 |
| 241 03:16:35 | -17.63 | 31008 |
| 241 05:01:30 | -43.98 | 31009 |
| 241 06:46:25 | -70.34 | 31010 |
| 241 08:31:20 | -96.69 | 31011 |
| 241 10:16:15 | -123.04 | 31012 |
| 241 12:01:10 | -149.40 | 31013 |
| 241 13:46:05 | -175.75 | 31014 |
| 241 15:30:59 | 157.89 | 31015 |
| 241 17:15:54 | 131.54 | 31016 |
| 241 19:00:49 | 105.19 | 31017 |
| 241 20:45:44 | 78.83 | 31018 |
| 241 22:30:39 | 52.48 | 31019 |

| | | |
|--------------|---------|------|
| 241 00:23:58 | -112.08 | 5772 |
| 241 02:10:52 | -138.43 | 5773 |
| 241 03:55:46 | -164.78 | 5774 |
| 241 05:40:39 | 168.87 | 5775 |
| 241 07:25:33 | 142.52 | 5776 |
| 241 09:10:27 | 116.17 | 5777 |
| 241 10:55:21 | 89.82 | 5778 |
| 241 12:40:15 | 63.48 | 5779 |
| 241 14:25:08 | 37.12 | 5780 |
| 241 16:10:02 | 10.78 | 5781 |
| 241 17:54:56 | -15.57 | 5782 |
| 241 19:39:50 | -41.92 | 5783 |
| 241 21:24:43 | -68.27 | 5784 |
| 241 23:09:37 | -94.62 | 5785 |

| | | |
|--------------|---------|-------|
| 242 00:15:34 | 26.13 | 31020 |
| 242 02:00:28 | -23 | 31021 |
| 242 03:45:23 | -26.58 | 31022 |
| 242 05:30:18 | -52.94 | 31023 |
| 242 07:15:13 | -79.29 | 31024 |
| 242 09:00:08 | -105.64 | 31025 |
| 242 10:45:03 | -132.00 | 31026 |
| 242 12:29:57 | -158.35 | 31027 |
| 242 14:14:52 | 175.29 | 31028 |
| 242 15:59:47 | 148.94 | 31029 |
| 242 17:44:42 | 122.58 | 31030 |
| 242 19:29:37 | 96.23 | 31031 |
| 242 21:14:32 | 69.88 | 31032 |
| 242 22:59:26 | 43.52 | 31033 |

| | | |
|--------------|---------|------|
| 242 00:34:31 | -120.97 | 5786 |
| 242 02:39:25 | -147.32 | 5787 |
| 242 04:24:19 | -173.67 | 5788 |
| 242 06:09:12 | 159.98 | 5789 |
| 242 07:54:06 | 133.63 | 5790 |
| 242 09:39:00 | 107.28 | 5791 |
| 242 11:23:54 | 80.93 | 5792 |
| 242 13:08:47 | 54.58 | 5793 |
| 242 14:53:41 | 28.23 | 5794 |
| 242 16:38:35 | 1.88 | 5795 |
| 242 18:23:29 | -24.47 | 5796 |
| 242 20:08:23 | -50.82 | 5797 |
| 242 21:53:16 | -77.17 | 5798 |
| 242 23:38:10 | -103.52 | 5799 |

| | | |
|--------------|---------|-------|
| 243 00:44:21 | 17.17 | 31034 |
| 243 02:29:16 | -9.19 | 31035 |
| 243 04:14:11 | -35.54 | 31036 |
| 243 05:59:06 | -61.89 | 31037 |
| 243 07:44:01 | -88.25 | 31038 |
| 243 09:28:55 | -114.60 | 31039 |
| 243 11:13:50 | -140.96 | 31040 |
| 243 12:58:45 | -167.31 | 31041 |
| 243 14:43:40 | 166.34 | 31042 |
| 243 16:28:35 | 139.98 | 31043 |
| 243 18:13:30 | 113.63 | 31044 |
| 243 19:58:25 | 87.28 | 31045 |
| 243 21:43:19 | 60.92 | 31046 |
| 243 23:28:14 | 34.57 | 31047 |

| | | |
|--------------|---------|------|
| 243 01:23:04 | -129.87 | 5800 |
| 243 03:07:58 | -156.21 | 5801 |
| 243 04:52:51 | 177.43 | 5802 |
| 243 06:37:45 | 151.08 | 5803 |
| 243 08:22:39 | 124.74 | 5804 |
| 243 10:07:33 | 98.39 | 5805 |
| 243 11:52:27 | 72.04 | 5806 |
| 243 13:37:20 | 45.69 | 5807 |
| 243 15:22:14 | 19.34 | 5808 |
| 243 17:07:08 | -7.01 | 5809 |
| 243 18:52:02 | -33.36 | 5810 |
| 243 20:36:55 | -59.71 | 5811 |
| 243 22:21:49 | -86.06 | 5812 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 240 00:47:53 | -106.62 | 29413 |
| 240 02:29:56 | -132.13 | 29414 |
| 240 04:11:56 | -157.62 | 29415 |
| 240 05:53:57 | 176.87 | 29416 |
| 240 07:35:57 | 151.38 | 29417 |
| 240 09:17:58 | 125.88 | 29418 |
| 240 10:59:58 | 100.38 | 29419 |
| 240 12:41:59 | 74.88 | 29420 |
| 240 14:23:59 | 49.38 | 29421 |
| 240 16:06:00 | 23.88 | 29422 |
| 240 17:48:00 | -1.61 | 29423 |
| 240 19:30:01 | -27.12 | 29424 |
| 240 21:12:01 | -52.61 | 29425 |
| 240 22:54:02 | -78.12 | 29426 |

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 240 01:14:36 | -88.18 | 20482 |
| 240 02:55:49 | -113.49 | 20483 |
| 240 04:37:02 | -138.79 | 20484 |
| 240 06:18:15 | -164.09 | 20485 |
| 240 07:59:29 | 170.59 | 20486 |
| 240 09:40:42 | 145.29 | 20487 |
| 240 11:21:55 | 119.98 | 20488 |
| 240 13:03:08 | 94.68 | 20489 |
| 240 14:44:21 | 69.38 | 20490 |
| 240 16:25:35 | 44.06 | 20491 |
| 240 18:06:48 | 18.76 | 20492 |
| 240 19:48:01 | -6.54 | 20493 |
| 240 21:29:14 | -31.85 | 20494 |
| 240 23:10:27 | -57.15 | 20495 |

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 240 01:21:37 | -168.26 | 9910 |
| 240 03:03:42 | 166.22 | 9911 |
| 240 04:45:46 | 140.71 | 9912 |
| 240 06:27:51 | 115.19 | 9913 |
| 240 08:09:56 | 89.67 | 9914 |
| 240 09:52:01 | 64.15 | 9915 |
| 240 11:34:05 | 38.64 | 9916 |
| 240 13:16:10 | 13.12 | 9917 |
| 240 14:58:15 | -12.41 | 9918 |
| 240 16:40:20 | -37.93 | 9919 |
| 240 18:22:25 | -63.45 | 9920 |
| 240 20:04:29 | -88.96 | 9921 |
| 240 21:46:34 | -114.48 | 9922 |
| 240 23:28:39 | -140.00 | 9923 |

| | | |
|--------------|---------|-------|
| 241 00:36:02 | -103.61 | 29427 |
| 241 02:18:03 | -129.12 | 29428 |
| 241 04:00:03 | -154.61 | 29429 |
| 241 05:42:04 | 179.88 | 29430 |
| 241 07:24:04 | 154.39 | 29431 |
| 241 09:06:05 | 128.88 | 29432 |
| 241 10:48:05 | 103.39 | 29433 |
| 241 12:30:06 | 77.88 | 29434 |
| 241 14:12:06 | 52.39 | 29435 |
| 241 15:54:07 | 26.89 | 29436 |
| 241 17:36:07 | 1.39 | 29437 |
| 241 19:18:08 | -24.11 | 29438 |
| 241 21:00:08 | -49.61 | 29439 |
| 241 22:42:09 | -75.11 | 29440 |

| | | |
|--------------|---------|-------|
| 241 00:51:41 | -82.47 | 20496 |
| 241 02:32:54 | -107.77 | 20497 |
| 241 04:14:07 | -133.07 | 20498 |
| 241 05:55:20 | -158.37 | 20499 |
| 241 07:36:33 | 176.32 | 20500 |
| 241 09:17:46 | 151.02 | 20501 |
| 241 10:59:00 | 125.70 | 20502 |
| 241 12:40:13 | 100.40 | 20503 |
| 241 14:21:26 | 75.10 | 20504 |
| 241 16:02:39 | 49.79 | 20505 |
| 241 17:43:52 | 24.49 | 20506 |
| 241 19:25:06 | -.83 | 20507 |
| 241 21:06:19 | -26.13 | 20508 |
| 241 22:47:32 | -51.43 | 20509 |

| | | |
|--------------|---------|------|
| 241 01:10:44 | -165.52 | 9924 |
| 241 02:52:48 | 168.97 | 9925 |
| 241 04:34:53 | 143.45 | 9926 |
| 241 06:16:58 | 117.92 | 9927 |
| 241 07:59:03 | 92.40 | 9928 |
| 241 09:41:08 | 66.88 | 9929 |
| 241 11:23:12 | 41.37 | 9930 |
| 241 13:05:17 | 15.85 | 9931 |
| 241 14:47:22 | -9.67 | 9932 |
| 241 16:29:27 | -35.19 | 9933 |
| 241 18:11:32 | -60.72 | 9934 |
| 241 19:53:36 | -86.22 | 9935 |
| 241 21:35:41 | -111.75 | 9936 |
| 241 23:17:46 | -137.27 | 9937 |

| | | |
|--------------|---------|-------|
| 242 00:24:09 | -100.60 | 29441 |
| 242 02:06:10 | -126.11 | 29442 |
| 242 03:48:10 | -151.60 | 29443 |
| 242 05:30:11 | -177.11 | 29444 |
| 242 07:12:11 | 157.40 | 29445 |
| 242 08:54:12 | 131.89 | 29446 |
| 242 10:36:12 | 106.40 | 29447 |
| 242 12:18:13 | 80.89 | 29448 |
| 242 14:00:13 | 55.40 | 29449 |
| 242 15:42:14 | 29.89 | 29450 |
| 242 17:24:14 | 4.40 | 29451 |
| 242 19:06:15 | -21.11 | 29452 |
| 242 20:48:15 | -46.60 | 29453 |
| 242 22:30:16 | -72.10 | 29454 |

| | | |
|--------------|---------|-------|
| 242 00:28:45 | -76.73 | 20510 |
| 242 02:09:58 | -102.04 | 20511 |
| 242 03:51:12 | -127.35 | 20512 |
| 242 05:32:25 | -152.66 | 20513 |
| 242 07:13:38 | -177.96 | 20514 |
| 242 08:54:51 | 156.74 | 20515 |
| 242 10:36:04 | 131.43 | 20516 |
| 242 12:17:17 | 106.13 | 20517 |
| 242 13:58:31 | 80.82 | 20518 |
| 242 15:39:44 | 55.51 | 20519 |
| 242 17:20:57 | 30.21 | 20520 |
| 242 19:02:10 | 4.91 | 20521 |
| 242 20:43:23 | -20.40 | 20522 |
| 242 22:24:37 | -45.71 | 20523 |

| | | |
|--------------|---------|------|
| 242 00:59:51 | -162.79 | 9938 |
| 242 02:41:55 | 171.70 | 9939 |
| 242 04:24:00 | 146.18 | 9940 |
| 242 06:06:05 | 120.66 | 9941 |
| 242 07:48:10 | 95.14 | 9942 |
| 242 09:30:15 | 69.61 | 9943 |
| 242 11:12:19 | 44.11 | 9944 |
| 242 12:54:24 | 18.58 | 9945 |
| 242 14:36:29 | -6.94 | 9946 |
| 242 16:18:34 | -32.46 | 9947 |
| 242 18:00:38 | -57.97 | 9948 |
| 242 19:42:43 | -83.49 | 9949 |
| 242 21:24:48 | -109.01 | 9950 |
| 242 23:06:53 | -134.53 | 9951 |

| | | |
|--------------|---------|-------|
| 243 00:12:16 | -97.60 | 29455 |
| 243 01:54:17 | -123.10 | 29456 |
| 243 03:36:17 | -148.60 | 29457 |
| 243 05:18:18 | -174.10 | 29458 |
| 243 07:00:18 | 160.41 | 29459 |
| 243 08:42:19 | 134.90 | 29460 |
| 243 10:24:19 | 109.41 | 29461 |
| 243 12:06:20 | 83.90 | 29462 |
| 243 13:48:20 | 58.41 | 29463 |
| 243 15:30:21 | 32.90 | 29464 |
| 243 17:12:21 | 7.41 | 29465 |
| 243 18:54:22 | -18.10 | 29466 |
| 243 20:36:22 | -43.59 | 29467 |
| 243 22:18:23 | -69.10 | 29468 |

| | | |
|--------------|---------|-------|
| 243 00:05:50 | -71.02 | 20524 |
| 243 01:47:03 | -96.32 | 20525 |
| 243 03:28:16 | -121.62 | 20526 |
| 243 05:09:29 | -146.92 | 20527 |
| 243 06:50:43 | -172.24 | 20528 |
| 243 08:31:56 | 162.46 | 20529 |
| 243 10:13:09 | 137.15 | 20530 |
| 243 11:54:22 | 111.85 | 20531 |
| 243 13:35:35 | 86.55 | 20532 |
| 243 15:16:48 | 61.24 | 20533 |
| 243 16:58:02 | 35.93 | 20534 |
| 243 18:39:15 | 10.62 | 20535 |
| 243 20:20:28 | -14.68 | 20536 |
| 243 22:01:41 | -39.98 | 20537 |
| 243 23:42:54 | -65.28 | 20538 |

| | | |
|--------------|---------|------|
| 243 00:48:58 | -160.06 | 9952 |
| 243 02:31:02 | 174.43 | 9953 |
| 243 04:13:07 | 148.91 | 9954 |
| 243 05:55:12 | 123.39 | 9955 |
| 243 07:37:17 | 97.87 | 9956 |
| 243 09:19:21 | 72.36 | 9957 |
| 243 11:01:26 | 46.84 | 9958 |
| 243 12:43:31 | 21.32 | 9959 |
| 243 14:25:36 | -4.21 | 9960 |
| 243 16:07:41 | -29.73 | 9961 |
| 243 17:49:45 | -55.24 | 9962 |
| 243 19:31:50 | -80.76 | 9963 |
| 243 21:13:55 | -106.28 | 9964 |
| 243 22:56:00 | -131.80 | 9965 |

| SATELLITE C3 | | | | | |
|----------------------------|---------|-------|-----------------------------|---------|-------|
| Ascending Node Predictions | | | Descending Node Predictions | | |
| Predicting for 186 days | | | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT |
| day hr mn sc | deg dg | | day hr mn sc | deg dg | |
| 244 01:13:09 | 8.21 | 31048 | 244 00:06:43 | -112.41 | 5813 |
| 244 02:58:04 | -18.14 | 31049 | 244 01:51:37 | -138.76 | 5814 |
| 244 04:42:59 | -44.49 | 31050 | 244 03:36:31 | -165.11 | 5815 |
| 244 06:27:54 | -70.85 | 31051 | 244 05:21:24 | 168.54 | 5816 |
| 244 08:12:48 | -97.20 | 31052 | 244 07:06:18 | 142.19 | 5817 |
| 244 09:57:43 | -123.56 | 31053 | 244 08:51:12 | 115.84 | 5818 |
| 244 11:42:38 | -149.91 | 31054 | 244 10:36:06 | 89.49 | 5819 |
| 244 13:27:33 | -176.26 | 31055 | 244 12:20:59 | 63.14 | 5820 |
| 244 15:12:28 | 157.38 | 31056 | 244 14:05:53 | 36.79 | 5821 |
| 244 16:57:23 | 131.03 | 31057 | 244 15:50:47 | 10.44 | 5822 |
| 244 18:42:17 | 104.67 | 31058 | 244 17:35:41 | -15.91 | 5823 |
| 244 20:27:12 | 78.32 | 31059 | 244 19:20:35 | -42.25 | 5824 |
| 244 22:12:07 | 51.96 | 31060 | 244 21:05:28 | -68.61 | 5825 |
| 244 23:57:02 | 25.61 | 31061 | 244 22:50:22 | -94.95 | 5826 |
| | | | | | |
| 245 01:41:57 | -.74 | 31062 | 245 00:35:16 | -121.30 | 5827 |
| 245 03:26:52 | -27.10 | 31063 | 245 02:20:10 | -147.65 | 5828 |
| 245 05:11:46 | -53.45 | 31064 | 245 04:05:03 | -174.00 | 5829 |
| 245 06:56:41 | -79.81 | 31065 | 245 05:49:57 | 159.65 | 5830 |
| 245 08:41:36 | -106.16 | 31066 | 245 07:34:51 | 133.30 | 5831 |
| 245 10:26:31 | -132.51 | 31067 | 245 09:19:45 | 106.95 | 5832 |
| 245 12:11:26 | -158.87 | 31068 | 245 11:04:39 | 80.60 | 5833 |
| 245 13:56:21 | 174.78 | 31069 | 245 12:49:32 | 54.25 | 5834 |
| 245 15:41:15 | 148.42 | 31070 | 245 14:34:26 | 27.90 | 5835 |
| 245 17:26:10 | 122.07 | 31071 | 245 16:19:20 | 1.55 | 5836 |
| 245 19:11:05 | 95.72 | 31072 | 245 18:04:14 | -24.80 | 5837 |
| 245 20:56:00 | 69.36 | 31073 | 245 19:49:07 | -51.15 | 5838 |
| 245 22:40:55 | 43.01 | 31074 | 245 21:34:01 | -77.50 | 5839 |
| | | | 245 23:18:55 | -103.85 | 5840 |
| | | | | | |
| 246 00:25:50 | 16.66 | 31075 | 246 01:03:49 | -130.20 | 5841 |
| 246 02:10:44 | -9.70 | 31076 | 246 02:48:43 | -156.55 | 5842 |
| 246 03:55:39 | -36.05 | 31077 | 246 04:33:36 | 177.10 | 5843 |
| 246 05:40:34 | -62.41 | 31078 | 246 06:18:30 | 150.75 | 5844 |
| 246 07:25:29 | -88.76 | 31079 | 246 08:03:24 | 124.40 | 5845 |
| 246 09:10:24 | -115.11 | 31080 | 246 09:48:18 | 98.06 | 5846 |
| 246 10:55:19 | -141.47 | 31081 | 246 11:33:11 | 71.70 | 5847 |
| 246 12:40:13 | -167.82 | 31082 | 246 13:18:05 | 45.35 | 5848 |
| 246 14:25:08 | 165.82 | 31083 | 246 15:02:59 | 19.01 | 5849 |
| 246 16:10:03 | 139.47 | 31084 | 246 16:47:53 | -7.34 | 5850 |
| 246 17:54:58 | 113.12 | 31085 | 246 18:32:47 | -33.69 | 5851 |
| 246 19:39:53 | 86.76 | 31086 | 246 20:17:40 | -60.04 | 5852 |
| 246 21:24:48 | 60.41 | 31087 | 246 22:02:34 | -86.39 | 5853 |
| 246 23:09:42 | 34.05 | 31088 | 246 23:47:28 | -112.74 | 5854 |
| | | | | | |
| 247 00:54:37 | 7.70 | 31089 | 247 01:32:22 | -139.09 | 5855 |
| 247 02:39:32 | -18.65 | 31090 | 247 03:17:15 | -165.44 | 5856 |
| 247 04:24:27 | -45.01 | 31091 | 247 05:02:09 | 168.21 | 5857 |
| 247 06:09:22 | -71.36 | 31092 | 247 06:47:03 | 141.86 | 5858 |
| 247 07:54:17 | -97.72 | 31093 | 247 08:31:57 | 115.51 | 5859 |
| 247 09:39:11 | -124.07 | 31094 | 247 10:16:51 | 89.16 | 5860 |
| 247 11:24:06 | -150.43 | 31095 | 247 12:01:44 | 62.81 | 5861 |
| 247 13:09:01 | -176.78 | 31096 | 247 13:46:38 | 36.46 | 5862 |
| 247 14:53:56 | 156.87 | 31097 | 247 15:31:32 | 10.11 | 5863 |
| 247 16:38:51 | 130.51 | 31098 | 247 17:16:26 | -16.24 | 5864 |
| 247 18:23:46 | 104.16 | 31099 | 247 19:01:20 | -42.59 | 5865 |
| 247 20:08:41 | 77.81 | 31100 | 247 20:46:13 | -68.94 | 5866 |
| 247 21:53:35 | 51.45 | 31101 | 247 22:31:07 | -95.29 | 5867 |
| 247 23:38:30 | 25.10 | 31102 | | | |

| SATELLITE C4 | | | | | |
|----------------------------|---------|-------|-----------------------------|---------|-------|
| Ascending Node Predictions | | | Descending Node Predictions | | |
| Predicting for 184 days | | | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT |
| day hr mn sc | deg dg | | day hr mn sc | deg dg | |
| 244 00:06:43 | -112.41 | 5813 | 244 01:51:37 | -138.76 | 5814 |
| 244 03:36:31 | -165.11 | 5815 | 244 05:21:24 | 168.54 | 5816 |
| 244 07:06:18 | 142.19 | 5817 | 244 08:51:12 | 115.84 | 5818 |
| 244 10:36:06 | 89.49 | 5819 | 244 12:20:59 | 63.14 | 5820 |
| 244 14:05:53 | 36.79 | 5821 | 244 15:50:47 | 10.44 | 5822 |
| 244 17:35:41 | -15.91 | 5823 | 244 19:20:35 | -42.25 | 5824 |
| 244 21:05:28 | -68.61 | 5825 | 244 22:50:22 | -94.95 | 5826 |
| | | | | | |
| 245 00:35:16 | -121.30 | 5827 | 245 02:20:10 | -147.65 | 5828 |
| 245 04:05:03 | -174.00 | 5829 | 245 05:49:57 | 159.65 | 5830 |
| 245 07:34:51 | 133.30 | 5831 | 245 09:19:45 | 106.95 | 5832 |
| 245 11:04:39 | 80.60 | 5833 | 245 12:49:32 | 54.25 | 5834 |
| 245 14:34:26 | 27.90 | 5835 | 245 16:19:20 | 1.55 | 5836 |
| 245 18:04:14 | -24.80 | 5837 | 245 19:49:07 | -51.15 | 5838 |
| 245 21:34:01 | -77.50 | 5839 | 245 23:18:55 | -103.85 | 5840 |
| | | | | | |
| 246 01:03:49 | -130.20 | 5841 | 246 02:48:43 | -156.55 | 5842 |
| 246 04:33:36 | 177.10 | 5843 | 246 06:18:30 | 150.75 | 5844 |
| 246 08:03:24 | 124.40 | 5845 | 246 09:48:18 | 98.06 | 5846 |
| 246 11:33:11 | 71.70 | 5847 | 246 13:18:05 | 45.35 | 5848 |
| 246 15:02:59 | 19.01 | 5849 | 246 16:47:53 | -7.34 | 5850 |
| 246 18:32:47 | -33.69 | 5851 | 246 20:17:40 | -60.04 | 5852 |
| 246 22:02:34 | -86.39 | 5853 | 246 23:47:28 | -112.74 | 5854 |
| | | | | | |
| 247 01:32:22 | -139.09 | 5855 | 247 03:17:15 | -165.44 | 5856 |
| 247 05:02:09 | 168.21 | 5857 | 247 06:47:03 | 141.86 | 5858 |
| 247 08:31:57 | 115.51 | 5859 | 247 10:16:51 | 89.16 | 5860 |
| 247 12:01:44 | 62.81 | 5861 | 247 13:46:38 | 36.46 | 5862 |
| 247 15:31:32 | 10.11 | 5863 | 247 17:16:26 | -16.24 | 5864 |
| 247 19:01:20 | -42.59 | 5865 | 247 20:46:13 | -68.94 | 5866 |
| 247 22:31:07 | -95.29 | 5867 | | | |

| SATELLITE S2 | | | | | | SATELLITE S3 | | | | | | SATELLITE S4 | | | | | |
|----------------------------|---------|-------|-------|--------------|---------|----------------------------|-------|--------------|---------|-------|-------|----------------------------|----|----|----|-----|----|
| Ascending Node Predictions | | | | | | Ascending Node Predictions | | | | | | Ascending Node Predictions | | | | | |
| Predicting for 184 days | | | | | | Predicting for 184 days | | | | | | Predicting for 184 days | | | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | day | hr | mn | sc | deg | dg |
| 244 00:00:23 | -94.59 | 29469 | | 244 01:24:08 | -90.60 | 20539 | | 244 00:38:05 | -157.32 | 9966 | | | | | | | |
| 244 01:42:24 | -120.10 | 29470 | | 244 03:05:21 | -115.90 | 20540 | | 244 02:20:09 | 177.17 | 9967 | | | | | | | |
| 244 03:24:24 | -145.59 | 29471 | | 244 04:46:34 | -141.21 | 20541 | | 244 04:02:14 | 151.65 | 9968 | | | | | | | |
| 244 05:06:25 | -171.09 | 29472 | | 244 06:27:47 | -166.51 | 20542 | | 244 05:44:19 | 126.12 | 9969 | | | | | | | |
| 244 06:48:26 | 163.40 | 29473 | | 244 08:09:00 | 168.19 | 20543 | | 244 07:26:24 | 100.60 | 9970 | | | | | | | |
| 244 08:30:26 | 137.91 | 29474 | | 244 09:50:13 | 142.88 | 20544 | | 244 09:08:28 | 75.09 | 9971 | | | | | | | |
| 244 10:12:27 | 112.40 | 29475 | | 244 11:31:27 | 117.57 | 20545 | | 244 10:50:33 | 49.57 | 9972 | | | | | | | |
| 244 11:54:27 | 86.91 | 29476 | | 244 13:12:40 | 92.27 | 20546 | | 244 12:32:38 | 24.05 | 9973 | | | | | | | |
| 244 13:36:28 | 61.40 | 29477 | | 244 14:53:53 | 66.96 | 20547 | | 244 14:14:43 | -1.47 | 9974 | | | | | | | |
| 244 15:18:28 | 35.91 | 29478 | | 244 16:35:06 | 41.66 | 20548 | | 244 15:56:48 | -26.99 | 9975 | | | | | | | |
| 244 17:00:29 | 10.40 | 29479 | | 244 18:16:19 | 16.36 | 20549 | | 244 17:38:52 | -52.50 | 9976 | | | | | | | |
| 244 18:42:29 | -15.09 | 29480 | | 244 19:57:33 | -8.96 | 20550 | | 244 19:20:57 | -78.02 | 9977 | | | | | | | |
| 244 20:24:30 | -40.60 | 29481 | | 244 21:38:46 | -34.26 | 20551 | | 244 21:03:02 | -103.55 | 9978 | | | | | | | |
| 244 22:06:30 | -66.09 | 29482 | | 244 23:19:59 | -59.57 | 20552 | | 244 22:45:07 | -129.07 | 9979 | | | | | | | |
| 244 23:48:31 | -91.59 | 29483 | | | | | | | | | | | | | | | |
| 245 01:30:31 | -117.09 | 29484 | | 245 01:01:12 | -84.87 | 20553 | | 245 00:27:11 | -154.58 | 9980 | | | | | | | |
| 245 03:12:32 | -142.59 | 29485 | | 245 02:42:25 | -110.17 | 20554 | | 245 02:09:16 | 179.90 | 9981 | | | | | | | |
| 245 04:54:32 | -168.09 | 29486 | | 245 04:23:39 | -135.49 | 20555 | | 245 03:51:21 | 154.38 | 9982 | | | | | | | |
| 245 06:36:33 | 166.41 | 29487 | | 245 06:04:52 | -160.79 | 20556 | | 245 05:33:26 | 128.86 | 9983 | | | | | | | |
| 245 08:18:33 | 140.92 | 29488 | | 245 07:46:05 | 173.91 | 20557 | | 245 07:15:31 | 103.34 | 9984 | | | | | | | |
| 245 10:00:34 | 115.41 | 29489 | | 245 09:27:18 | 148.60 | 20558 | | 245 08:57:35 | 77.83 | 9985 | | | | | | | |
| 245 11:42:34 | 89.92 | 29490 | | 245 11:08:31 | 123.30 | 20559 | | 245 10:39:40 | 52.31 | 9986 | | | | | | | |
| 245 13:24:35 | 64.41 | 29491 | | 245 12:49:44 | 98.00 | 20560 | | 245 12:21:45 | 26.78 | 9987 | | | | | | | |
| 245 15:06:35 | 38.92 | 29492 | | 245 14:30:58 | 72.68 | 20561 | | 245 14:03:50 | -1.26 | 9988 | | | | | | | |
| 245 16:48:36 | 13.41 | 29493 | | 245 16:12:11 | 47.38 | 20562 | | 245 15:45:54 | -24.25 | 9989 | | | | | | | |
| 245 18:30:36 | -12.08 | 29494 | | 245 17:53:24 | 22.07 | 20563 | | 245 17:27:59 | -49.77 | 9990 | | | | | | | |
| 245 20:12:37 | -37.59 | 29495 | | 245 19:34:37 | -3.23 | 20564 | | 245 19:10:04 | -75.29 | 9991 | | | | | | | |
| 245 21:54:37 | -63.08 | 29496 | | 245 21:15:50 | -28.53 | 20565 | | 245 20:52:09 | -100.81 | 9992 | | | | | | | |
| 245 23:36:38 | -88.59 | 29497 | | 245 22:57:04 | -53.85 | 20566 | | 245 22:34:14 | -126.33 | 9993 | | | | | | | |
| 246 01:18:38 | -114.08 | 29498 | | 246 00:38:17 | -79.15 | 20567 | | 246 00:16:18 | -151.84 | 9994 | | | | | | | |
| 246 03:00:39 | -139.59 | 29499 | | 246 02:19:30 | -104.45 | 20568 | | 246 01:58:23 | -177.36 | 9995 | | | | | | | |
| 246 04:42:39 | -165.08 | 29500 | | 246 04:00:43 | -129.76 | 20569 | | 246 03:40:28 | 157.11 | 9996 | | | | | | | |
| 246 06:24:40 | 169.42 | 29501 | | 246 05:41:56 | -155.06 | 20570 | | 246 05:22:33 | 131.59 | 9997 | | | | | | | |
| 246 08:06:40 | 143.92 | 29502 | | 246 07:23:09 | 179.64 | 20571 | | 246 07:04:37 | 106.08 | 9998 | | | | | | | |
| 246 09:48:41 | 118.42 | 29503 | | 246 09:04:23 | 154.32 | 20572 | | 246 08:46:42 | 80.56 | 9999 | | | | | | | |
| 246 11:30:41 | 92.92 | 29504 | | 246 10:45:36 | 129.02 | 20573 | | 246 10:28:47 | 55.04 | 10000 | | | | | | | |
| 246 13:12:42 | 67.42 | 29505 | | 246 12:26:49 | 103.72 | 20574 | | 246 12:10:52 | 29.52 | 10001 | | | | | | | |
| 246 14:54:42 | 41.93 | 29506 | | 246 14:08:02 | 78.41 | 20575 | | 246 13:52:57 | 4.00 | 10002 | | | | | | | |
| 246 16:36:43 | 16.42 | 29507 | | 246 15:49:15 | 53.11 | 20576 | | 246 15:35:01 | -21.51 | 10003 | | | | | | | |
| 246 18:18:43 | -9.07 | 29508 | | 246 17:30:29 | 27.79 | 20577 | | 246 17:17:06 | -47.04 | 10004 | | | | | | | |
| 246 20:00:44 | -34.58 | 29509 | | 246 19:11:42 | 2.49 | 20578 | | 246 18:59:11 | -72.56 | 10005 | | | | | | | |
| 246 21:42:44 | -60.07 | 29510 | | 246 20:52:55 | -22.81 | 20579 | | 246 20:41:16 | -98.08 | 10006 | | | | | | | |
| 246 23:24:45 | -85.58 | 29511 | | 246 22:34:08 | -48.12 | 20580 | | 246 22:23:20 | -123.59 | 10007 | | | | | | | |
| 247 01:06:45 | -111.07 | 29512 | | 247 00:15:21 | -73.42 | 20581 | | 247 00:05:25 | -149.11 | 10008 | | | | | | | |
| 247 02:48:46 | -136.58 | 29513 | | 247 01:56:35 | -98.74 | 20582 | | 247 01:47:30 | -174.63 | 10009 | | | | | | | |
| 247 04:30:46 | -162.07 | 29514 | | 247 03:37:48 | -124.04 | 20583 | | 247 03:29:35 | 159.85 | 10010 | | | | | | | |
| 247 06:12:47 | 172.42 | 29515 | | 247 05:19:01 | -149.34 | 20584 | | 247 05:11:40 | 134.32 | 10011 | | | | | | | |
| 247 07:54:47 | 146.93 | 29516 | | 247 07:00:14 | -174.64 | 20585 | | 247 06:53:44 | 108.82 | 10012 | | | | | | | |
| 247 09:36:48 | 121.42 | 29517 | | 247 08:41:27 | 160.05 | 20586 | | 247 08:35:49 | 83.29 | 10013 | | | | | | | |
| 247 11:18:48 | 95.93 | 29518 | | 247 10:22:40 | 134.75 | 20587 | | 247 10:17:54 | 57.77 | 10014 | | | | | | | |
| 247 13:00:49 | 70.43 | 29519 | | 247 12:03:54 | 109.43 | 20588 | | 247 11:59:59 | 32.25 | 10015 | | | | | | | |
| 247 14:42:49 | 44.93 | 29520 | | 247 13:45:07 | 84.13 | 20589 | | 247 13:42:03 | 6.74 | 10016 | | | | | | | |
| 247 16:24:50 | 19.43 | 29521 | | 247 15:26:20 | 58.83 | 20590 | | 247 15:24:08 | -18.78 | 10017 | | | | | | | |
| 247 18:06:50 | -6.07 | 29522 | | 247 17:07:33 | 33.52 | 20591 | | 247 17:06:13 | -44.30 | 10018 | | | | | | | |
| 247 19:48:51 | -31.57 | 29523 | | 247 18:48:46 | 8.22 | 20592 | | 247 18:48:18 | -69.82 | 10019 | | | | | | | |
| 247 21:30:51 | -57.06 | 29524 | | 247 20:30:00 | -17.09 | 20593 | | 247 20:30:23 | -95.35 | 10020 | | | | | | | |
| 247 23:12:52 | -82.57 | 29525 | | 247 22:11:13 | -42.40 | 20594 | | 247 22:12:27 | -120.85 | 10021 | | | | | | | |
| | | | | 247 23:52:26 | -67.70 | 20595 | | 247 23:54:32 | -146.38 | 10022 | | | | | | | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 248 01:23:25 | -1.26 | 31103 |
| 248 03:08:20 | -27.61 | 31104 |
| 248 04:53:15 | -53.96 | 31105 |
| 248 06:38:10 | -80.32 | 31106 |
| 248 08:23:04 | -106.67 | 31107 |
| 248 10:07:59 | -133.03 | 31108 |
| 248 11:52:54 | -159.38 | 31109 |
| 248 13:37:49 | 174.27 | 31110 |
| 248 15:22:44 | 147.91 | 31111 |
| 248 17:07:39 | 121.56 | 31112 |
| 248 18:52:33 | 95.20 | 31113 |
| 248 20:37:28 | 68.85 | 31114 |
| 248 22:22:23 | 42.50 | 31115 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 248 00:16:01 | -121.63 | 5868 |
| 248 02:00:55 | -147.98 | 5869 |
| 248 03:45:48 | -174.34 | 5870 |
| 248 05:30:42 | 159.32 | 5871 |
| 248 07:15:36 | 132.97 | 5872 |
| 248 09:00:30 | 106.62 | 5873 |
| 248 10:45:24 | 80.27 | 5874 |
| 248 12:30:17 | 53.92 | 5875 |
| 248 14:15:11 | 27.57 | 5876 |
| 248 16:00:05 | 1.22 | 5877 |
| 248 17:44:59 | -25.13 | 5878 |
| 248 19:29:52 | -51.48 | 5879 |
| 248 21:14:46 | -77.83 | 5880 |
| 248 22:59:40 | -104.18 | 5881 |

| | | |
|--------------|---------|-------|
| 249 00:07:18 | 16.14 | 31116 |
| 249 01:52:13 | -10.21 | 31117 |
| 249 03:37:08 | -36.56 | 31118 |
| 249 05:22:02 | -62.92 | 31119 |
| 249 07:06:57 | -89.27 | 31120 |
| 249 08:51:52 | -115.63 | 31121 |
| 249 10:36:47 | -141.98 | 31122 |
| 249 12:21:42 | -168.33 | 31123 |
| 249 14:06:37 | 165.31 | 31124 |
| 249 15:51:31 | 138.96 | 31125 |
| 249 17:36:26 | 112.60 | 31126 |
| 249 19:21:21 | 86.25 | 31127 |
| 249 21:06:16 | 59.90 | 31128 |
| 249 22:51:11 | 33.54 | 31129 |

| | | |
|--------------|---------|------|
| 249 00:44:34 | -130.53 | 5882 |
| 249 02:29:28 | -156.88 | 5883 |
| 249 04:14:21 | 176.77 | 5884 |
| 249 05:59:15 | 150.42 | 5885 |
| 249 07:44:09 | 124.07 | 5886 |
| 249 09:29:03 | 97.72 | 5887 |
| 249 11:13:56 | 71.37 | 5888 |
| 249 12:58:50 | 45.02 | 5889 |
| 249 14:43:44 | 18.67 | 5890 |
| 249 16:28:38 | -7.67 | 5891 |
| 249 18:13:32 | -34.02 | 5892 |
| 249 19:58:25 | -60.37 | 5893 |
| 249 21:43:19 | -86.72 | 5894 |
| 249 23:28:13 | -113.07 | 5895 |

| | | |
|--------------|---------|-------|
| 250 00:36:06 | 7.19 | 31130 |
| 250 02:21:00 | -19.17 | 31131 |
| 250 04:05:55 | -45.52 | 31132 |
| 250 05:50:50 | -71.87 | 31133 |
| 250 07:35:45 | -98.23 | 31134 |
| 250 09:20:40 | -124.58 | 31135 |
| 250 11:05:34 | -150.94 | 31136 |
| 250 12:50:29 | -177.29 | 31137 |
| 250 14:35:24 | 156.35 | 31138 |
| 250 16:20:19 | 130.00 | 31139 |
| 250 18:05:14 | 103.65 | 31140 |
| 250 19:50:09 | 77.29 | 31141 |
| 250 21:35:03 | 50.94 | 31142 |
| 250 23:19:58 | 24.58 | 31143 |

| | | |
|--------------|---------|------|
| 250 01:13:07 | -139.42 | 5896 |
| 250 02:58:00 | -165.77 | 5897 |
| 250 04:42:54 | 167.88 | 5898 |
| 250 06:27:48 | 141.53 | 5899 |
| 250 08:12:42 | 115.18 | 5900 |
| 250 09:57:36 | 88.83 | 5901 |
| 250 11:42:29 | 62.48 | 5902 |
| 250 13:27:23 | 36.13 | 5903 |
| 250 15:12:17 | 9.78 | 5904 |
| 250 16:57:11 | -16.57 | 5905 |
| 250 18:42:04 | -42.92 | 5906 |
| 250 20:26:58 | -69.27 | 5907 |
| 250 22:11:52 | -95.62 | 5908 |
| 250 23:56:46 | -121.97 | 5909 |

| | | |
|--------------|---------|-------|
| 251 01:04:53 | -1.77 | 31144 |
| 251 02:49:48 | -28.12 | 31145 |
| 251 04:34:43 | -54.48 | 31146 |
| 251 06:19:38 | -80.83 | 31147 |
| 251 08:04:32 | -107.19 | 31148 |
| 251 09:49:27 | -133.54 | 31149 |
| 251 11:34:22 | -159.89 | 31150 |
| 251 13:19:17 | 173.75 | 31151 |
| 251 15:04:12 | 147.40 | 31152 |
| 251 16:49:07 | 121.05 | 31153 |
| 251 18:34:01 | 94.69 | 31154 |
| 251 20:18:56 | 68.34 | 31155 |
| 251 22:03:51 | 41.98 | 31156 |
| 251 23:48:46 | 15.63 | 31157 |

| | | |
|--------------|---------|------|
| 251 01:41:40 | -148.32 | 5910 |
| 251 03:26:33 | -174.67 | 5911 |
| 251 05:11:27 | 158.98 | 5912 |
| 251 06:56:21 | 132.64 | 5913 |
| 251 08:41:15 | 106.29 | 5914 |
| 251 10:26:08 | 79.93 | 5915 |
| 251 12:11:02 | 53.59 | 5916 |
| 251 13:55:56 | 27.24 | 5917 |
| 251 15:40:50 | .89 | 5918 |
| 251 17:25:44 | -25.46 | 5919 |
| 251 19:10:37 | -51.81 | 5920 |
| 251 20:55:31 | -78.16 | 5921 |
| 251 22:40:25 | -104.51 | 5922 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 248 00:54:52 | -108.06 | 29526 |
| 248 02:36:53 | -133.57 | 29527 |
| 248 04:18:53 | -159.06 | 29528 |
| 248 06:00:54 | 175.43 | 29529 |
| 248 07:42:54 | 149.94 | 29530 |
| 248 09:24:55 | 124.43 | 29531 |
| 248 11:06:55 | 98.94 | 29532 |
| 248 12:48:56 | 73.43 | 29533 |
| 248 14:30:56 | 47.94 | 29534 |
| 248 16:12:57 | 22.43 | 29535 |
| 248 17:54:57 | -3.06 | 29536 |
| 248 19:36:58 | -28.56 | 29537 |
| 248 21:18:58 | -54.06 | 29538 |
| 248 23:00:59 | -79.56 | 29539 |

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 248 01:33:39 | -93.00 | 20596 |
| 248 03:14:52 | -118.31 | 20597 |
| 248 04:56:05 | -143.61 | 20598 |
| 248 06:37:19 | -168.93 | 20599 |
| 248 08:18:32 | 165.77 | 20600 |
| 248 09:59:45 | 140.47 | 20601 |
| 248 11:40:58 | 115.17 | 20602 |
| 248 13:22:11 | 89.86 | 20603 |
| 248 15:03:25 | 64.55 | 20604 |
| 248 16:44:38 | 39.24 | 20605 |
| 248 18:25:51 | 13.94 | 20606 |
| 248 20:07:04 | -11.36 | 20607 |
| 248 21:48:17 | -36.67 | 20608 |
| 248 23:29:31 | -61.98 | 20609 |

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 248 01:36:37 | -171.90 | 10023 |
| 248 03:18:42 | 162.58 | 10024 |
| 248 05:00:46 | 137.07 | 10025 |
| 248 06:42:51 | 111.55 | 10026 |
| 248 08:24:56 | 86.03 | 10027 |
| 248 10:07:01 | 60.51 | 10028 |
| 248 11:49:06 | 34.98 | 10029 |
| 248 13:31:10 | 9.48 | 10030 |
| 248 15:13:15 | -16.05 | 10031 |
| 248 16:55:20 | -41.57 | 10032 |
| 248 18:37:25 | -67.09 | 10033 |
| 248 20:19:29 | -92.60 | 10034 |
| 248 22:01:34 | -118.12 | 10035 |
| 248 23:43:39 | -143.64 | 10036 |

| | | |
|--------------|---------|-------|
| 249 00:42:59 | -105.06 | 29540 |
| 249 02:25:00 | -130.56 | 29541 |
| 249 04:07:00 | -156.05 | 29542 |
| 249 05:49:01 | 178.44 | 29543 |
| 249 07:31:01 | 152.95 | 29544 |
| 249 09:13:02 | 127.44 | 29545 |
| 249 10:55:02 | 101.95 | 29546 |
| 249 12:37:03 | 76.44 | 29547 |
| 249 14:19:03 | 50.95 | 29548 |
| 249 16:01:04 | 25.44 | 29549 |
| 249 17:43:04 | -0.05 | 29550 |
| 249 19:25:05 | -25.56 | 29551 |
| 249 21:07:05 | -51.05 | 29552 |
| 249 22:49:06 | -76.56 | 29553 |

| | | |
|--------------|---------|-------|
| 249 01:10:44 | -87.29 | 20610 |
| 249 02:51:57 | -112.59 | 20611 |
| 249 04:33:10 | -137.89 | 20612 |
| 249 06:14:23 | -163.19 | 20613 |
| 249 07:55:36 | 171.50 | 20614 |
| 249 09:36:50 | 146.19 | 20615 |
| 249 11:18:03 | 120.88 | 20616 |
| 249 12:59:16 | 95.58 | 20617 |
| 249 14:40:29 | 70.28 | 20618 |
| 249 16:21:42 | 44.97 | 20619 |
| 249 18:02:56 | 19.66 | 20620 |
| 249 19:44:09 | -5.64 | 20621 |
| 249 21:25:22 | -30.95 | 20622 |
| 249 23:06:35 | -56.25 | 20623 |

| | | |
|--------------|---------|-------|
| 249 01:23:44 | -169.16 | 10037 |
| 249 03:07:49 | 165.31 | 10038 |
| 249 04:49:53 | 139.80 | 10039 |
| 249 06:31:58 | 114.28 | 10040 |
| 249 08:14:03 | 88.76 | 10041 |
| 249 09:56:08 | 63.24 | 10042 |
| 249 11:38:12 | 37.73 | 10043 |
| 249 13:20:17 | 12.21 | 10044 |
| 249 15:02:22 | -13.31 | 10045 |
| 249 16:44:27 | -38.84 | 10046 |
| 249 18:26:32 | -64.36 | 10047 |
| 249 20:08:36 | -89.87 | 10048 |
| 249 21:50:41 | -115.39 | 10049 |
| 249 23:32:46 | -140.91 | 10050 |

| | | |
|--------------|---------|-------|
| 250 00:31:07 | -102.06 | 29554 |
| 250 02:13:07 | -127.55 | 29555 |
| 250 03:55:08 | -153.06 | 29556 |
| 250 05:37:08 | -178.55 | 29557 |
| 250 07:19:09 | 155.94 | 29558 |
| 250 09:01:09 | 130.45 | 29559 |
| 250 10:43:10 | 104.94 | 29560 |
| 250 12:25:10 | 79.45 | 29561 |
| 250 14:07:11 | 53.94 | 29562 |
| 250 15:49:11 | 28.45 | 29563 |
| 250 17:31:12 | 2.94 | 29564 |
| 250 19:13:12 | -22.55 | 29565 |
| 250 20:55:13 | -48.05 | 29566 |
| 250 22:37:13 | -73.55 | 29567 |

| | | |
|--------------|---------|-------|
| 250 00:47:48 | -81.55 | 20624 |
| 250 02:29:01 | -106.86 | 20625 |
| 250 04:10:15 | -132.17 | 20626 |
| 250 05:51:28 | -157.48 | 20627 |
| 250 07:32:41 | 177.22 | 20628 |
| 250 09:13:54 | 151.92 | 20629 |
| 250 10:55:07 | 126.61 | 20630 |
| 250 12:36:21 | 101.30 | 20631 |
| 250 14:17:34 | 76.00 | 20632 |
| 250 15:58:47 | 50.69 | 20633 |
| 250 17:40:00 | 25.39 | 20634 |
| 250 19:21:13 | .09 | 20635 |
| 250 21:02:26 | -25.22 | 20636 |
| 250 22:43:40 | -50.53 | 20637 |

| | | |
|--------------|---------|-------|
| 250 01:14:51 | -166.43 | 10051 |
| 250 02:56:55 | 168.06 | 10052 |
| 250 04:39:00 | 142.54 | 10053 |
| 250 06:21:05 | 117.02 | 10054 |
| 250 08:03:10 | 91.49 | 10055 |
| 250 09:45:15 | 65.97 | 10056 |
| 250 11:27:19 | 40.46 | 10057 |
| 250 13:09:24 | 14.94 | 10058 |
| 250 14:51:29 | -10.58 | 10059 |
| 250 16:33:34 | -36.10 | 10060 |
| 250 18:15:38 | -61.61 | 10061 |
| 250 19:57:43 | -87.13 | 10062 |
| 250 21:39:48 | -112.65 | 10063 |
| 250 23:21:53 | -138.18 | 10064 |

| | | |
|--------------|---------|-------|
| 251 00:19:14 | -99.05 | 29568 |
| 251 02:01:14 | -124.55 | 29569 |
| 251 03:43:15 | -150.05 | 29570 |
| 251 05:25:15 | -175.55 | 29571 |
| 251 07:07:16 | 158.95 | 29572 |
| 251 08:49:16 | 133.46 | 29573 |
| 251 10:31:17 | 107.95 | 29574 |
| 251 12:13:17 | 82.46 | 29575 |
| 251 13:55:18 | 56.95 | 29576 |
| 251 15:37:18 | 31.46 | 29577 |
| 251 17:19:19 | 5.95 | 29578 |
| 251 19:01:19 | -19.54 | 29579 |
| 251 20:43:20 | -45.05 | 29580 |
| 251 22:25:20 | -70.54 | 29581 |

| | | |
|--------------|---------|-------|
| 251 00:24:53 | -75.84 | 20638 |
| 251 02:06:06 | -101.14 | 20639 |
| 251 03:47:19 | -126.44 | 20640 |
| 251 05:28:32 | -151.74 | 20641 |
| 251 07:09:46 | -177.06 | 20642 |
| 251 08:50:59 | 157.64 | 20643 |
| 251 10:32:12 | 132.33 | 20644 |
| 251 12:13:25 | 107.03 | 20645 |
| 251 13:54:38 | 81.73 | 20646 |
| 251 15:35:52 | 56.41 | 20647 |
| 251 17:17:05 | 31.11 | 20648 |
| 251 18:58:18 | 5.80 | 20649 |
| 251 20:39:31 | -19.50 | 20650 |
| 251 22:20:44 | -44.80 | 20651 |

| | | |
|--------------|---------|-------|
| 251 01:03:58 | -163.70 | 10065 |
| 251 02:46:02 | 170.79 | 10066 |
| 251 04:28:07 | 145.27 | 10067 |
| 251 06:10:12 | 119.75 | 10068 |
| 251 07:52:17 | 94.23 | 10069 |
| 251 09:34:21 | 68.72 | 10070 |
| 251 11:16:26 | 43.20 | 10071 |
| 251 12:58:31 | 17.67 | 10072 |
| 251 14:40:36 | -7.85 | 10073 |
| 251 16:22:41 | -33.37 | 10074 |
| 251 18:04:45 | -58.88 | 10075 |
| 251 19:46:50 | -84.40 | 10076 |
| 251 21:28:55 | -109.92 | 10077 |
| 251 23:11:00 | -135.44 | 10078 |

SATELLITE C3

Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 252 | 01:33:41 | -10.72 | 31158 |
| 252 | 03:18:36 | -37.08 | 31159 |
| 252 | 05:03:30 | -63.43 | 31160 |
| 252 | 06:48:25 | -89.79 | 31161 |
| 252 | 08:33:20 | -116.14 | 31162 |
| 252 | 10:18:15 | -142.49 | 31163 |
| 252 | 12:03:10 | -168.85 | 31164 |
| 252 | 13:48:05 | 164.80 | 31165 |
| 252 | 15:32:59 | 138.44 | 31166 |
| 252 | 17:17:54 | 112.09 | 31167 |
| 252 | 19:02:49 | 85.74 | 31168 |
| 252 | 20:47:44 | 59.38 | 31169 |
| 252 | 22:32:39 | 33.03 | 31170 |

SATELLITE C4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | | |
|-----|----------|---------|------|
| 252 | 00:25:19 | -130.86 | 5923 |
| 252 | 02:10:12 | -157.21 | 5924 |
| 252 | 03:55:06 | 176.44 | 5925 |
| 252 | 05:40:00 | 150.09 | 5926 |
| 252 | 07:24:54 | 123.74 | 5927 |
| 252 | 09:09:48 | 97.39 | 5928 |
| 252 | 10:54:41 | 71.04 | 5929 |
| 252 | 12:39:35 | 44.69 | 5930 |
| 252 | 14:24:29 | 18.34 | 5931 |
| 252 | 16:09:23 | -8.01 | 5932 |
| 252 | 17:54:16 | -34.36 | 5933 |
| 252 | 19:39:10 | -60.71 | 5934 |
| 252 | 21:24:04 | -87.06 | 5935 |
| 252 | 23:08:58 | -113.40 | 5936 |

| | | | |
|-----|----------|---------|-------|
| 253 | 00:17:34 | 6.68 | 31171 |
| 253 | 02:02:28 | -19.68 | 31172 |
| 253 | 03:47:23 | -46.03 | 31173 |
| 253 | 05:32:18 | -72.39 | 31174 |
| 253 | 07:17:13 | -98.74 | 31175 |
| 253 | 09:02:08 | -125.09 | 31176 |
| 253 | 10:47:03 | -151.45 | 31177 |
| 253 | 12:31:57 | -177.80 | 31178 |
| 253 | 14:16:52 | 155.84 | 31179 |
| 253 | 16:01:47 | 129.49 | 31180 |
| 253 | 17:46:42 | 103.14 | 31181 |
| 253 | 19:31:37 | 76.78 | 31182 |
| 253 | 21:16:32 | 50.43 | 31183 |
| 253 | 23:01:26 | 24.07 | 31184 |

| | | | |
|-----|----------|---------|------|
| 253 | 00:53:52 | -139.75 | 5937 |
| 253 | 02:38:45 | -166.10 | 5938 |
| 253 | 04:23:39 | 167.55 | 5939 |
| 253 | 06:08:33 | 141.20 | 5940 |
| 253 | 07:53:27 | 114.85 | 5941 |
| 253 | 09:38:20 | 88.50 | 5942 |
| 253 | 11:23:14 | 62.15 | 5943 |
| 253 | 13:08:08 | 35.80 | 5944 |
| 253 | 14:53:02 | 9.45 | 5945 |
| 253 | 16:37:56 | -16.90 | 5946 |
| 253 | 18:22:49 | -43.25 | 5947 |
| 253 | 20:07:43 | -69.60 | 5948 |
| 253 | 21:52:37 | -95.95 | 5949 |
| 253 | 23:37:31 | -122.30 | 5950 |

| | | | |
|-----|----------|---------|-------|
| 254 | 00:46:21 | -2.28 | 31185 |
| 254 | 02:31:16 | -28.63 | 31186 |
| 254 | 04:16:11 | -54.99 | 31187 |
| 254 | 06:01:06 | -81.34 | 31188 |
| 254 | 07:46:00 | -107.70 | 31189 |
| 254 | 09:30:55 | -134.05 | 31190 |
| 254 | 11:15:50 | -160.40 | 31191 |
| 254 | 13:00:45 | 173.24 | 31192 |
| 254 | 14:45:40 | 146.89 | 31193 |
| 254 | 16:30:35 | 120.53 | 31194 |
| 254 | 18:15:29 | 94.18 | 31195 |
| 254 | 20:00:24 | 67.83 | 31196 |
| 254 | 21:45:19 | 41.47 | 31197 |
| 254 | 23:30:14 | 15.12 | 31198 |

| | | | |
|-----|----------|---------|------|
| 254 | 01:22:24 | -148.65 | 5951 |
| 254 | 03:07:18 | -175.00 | 5952 |
| 254 | 04:52:12 | 158.65 | 5953 |
| 254 | 06:37:06 | 132.30 | 5954 |
| 254 | 08:22:00 | 105.96 | 5955 |
| 254 | 10:06:53 | 79.60 | 5956 |
| 254 | 11:51:47 | 53.25 | 5957 |
| 254 | 13:36:41 | 26.91 | 5958 |
| 254 | 15:21:35 | .56 | 5959 |
| 254 | 17:06:28 | -25.79 | 5960 |
| 254 | 18:51:22 | -52.14 | 5961 |
| 254 | 20:36:16 | -78.49 | 5962 |
| 254 | 22:21:10 | -104.84 | 5963 |

| | | | |
|-----|----------|---------|-------|
| 255 | 01:15:09 | -11.24 | 31199 |
| 255 | 03:00:04 | -37.59 | 31200 |
| 255 | 04:44:58 | -63.94 | 31201 |
| 255 | 06:29:53 | -90.30 | 31202 |
| 255 | 08:14:48 | -116.65 | 31203 |
| 255 | 09:59:43 | -143.01 | 31204 |
| 255 | 11:44:38 | -169.36 | 31205 |
| 255 | 13:29:33 | 164.29 | 31206 |
| 255 | 15:14:27 | 137.93 | 31207 |
| 255 | 16:59:22 | 111.58 | 31208 |
| 255 | 18:44:17 | 85.22 | 31209 |
| 255 | 20:29:12 | 58.87 | 31210 |
| 255 | 22:14:07 | 32.52 | 31211 |
| 255 | 23:59:02 | 6.16 | 31212 |

| | | | |
|-----|----------|---------|------|
| 255 | 00:06:04 | -131.19 | 5964 |
| 255 | 01:50:57 | -157.54 | 5965 |
| 255 | 03:35:51 | 176.11 | 5966 |
| 255 | 05:20:45 | 149.76 | 5967 |
| 255 | 07:05:39 | 123.41 | 5968 |
| 255 | 08:50:32 | 97.06 | 5969 |
| 255 | 10:35:26 | 70.71 | 5970 |
| 255 | 12:20:20 | 44.36 | 5971 |
| 255 | 14:05:14 | 18.01 | 5972 |
| 255 | 15:50:08 | -8.34 | 5973 |
| 255 | 17:35:01 | -34.69 | 5974 |
| 255 | 19:19:55 | -61.04 | 5975 |
| 255 | 21:04:49 | -87.39 | 5976 |
| 255 | 22:49:43 | -113.73 | 5977 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|-------|----------------------------|---------|-------|-------|----------------------------|---------|-------|-------|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT |
| day hr mn sc | deg | dg | | day hr mn sc | deg | dg | | day hr mn sc | deg | dg | |
| 252 00:07:21 | -96.05 | 29582 | | 252 00:01:57 | -70.10 | 20652 | | 252 09:53:04 | -160.95 | 10079 | |
| 252 01:49:21 | -121.54 | 29583 | | 252 01:43:11 | -95.42 | 20653 | | 252 02:35:09 | 173.53 | 10080 | |
| 252 03:31:22 | -147.05 | 29584 | | 252 03:24:24 | -120.72 | 20654 | | 252 04:17:14 | 148.00 | 10081 | |
| 252 05:13:22 | -172.54 | 29585 | | 252 05:05:37 | -146.03 | 20655 | | 252 05:59:19 | 122.48 | 10082 | |
| 252 06:55:23 | -161.96 | 29586 | | 252 06:46:50 | -171.33 | 20656 | | 252 07:41:24 | 96.96 | 10083 | |
| 252 08:37:23 | 136.46 | 29587 | | 252 08:28:03 | 163.37 | 20657 | | 252 09:23:28 | 71.45 | 10084 | |
| 252 10:19:24 | 110.96 | 29588 | | 252 10:09:17 | 138.05 | 20658 | | 252 11:05:33 | 45.93 | 10085 | |
| 252 12:01:24 | 85.46 | 29589 | | 252 11:50:30 | 112.75 | 20659 | | 252 12:47:38 | 20.41 | 10086 | |
| 252 13:43:25 | 59.96 | 29590 | | 252 13:31:43 | 87.45 | 20660 | | 252 14:29:43 | -5.11 | 10087 | |
| 252 15:25:25 | 34.47 | 29591 | | 252 15:12:56 | 62.14 | 20661 | | 252 16:11:47 | -30.62 | 10088 | |
| 252 17:07:26 | 8.96 | 29592 | | 252 16:54:09 | 36.84 | 20662 | | 252 17:53:52 | -56.14 | 10089 | |
| 252 18:49:26 | -16.53 | 29593 | | 252 18:35:22 | 11.54 | 20663 | | 252 19:35:57 | -81.67 | 10090 | |
| 252 20:31:27 | -42.04 | 29594 | | 252 20:16:36 | -13.78 | 20664 | | 252 21:18:02 | -107.19 | 10091 | |
| 252 22:13:27 | -67.53 | 29595 | | 252 21:57:49 | -39.08 | 20665 | | 252 23:00:07 | -132.71 | 10092 | |
| 252 23:55:28 | -93.04 | 29596 | | 252 23:39:02 | -64.39 | 20666 | | | | | |
| 253 01:37:28 | -118.53 | 29597 | | 253 01:20:15 | -89.69 | 20667 | | 253 00:42:11 | -138.22 | 10093 | |
| 253 03:19:29 | -144.04 | 29598 | | 253 03:01:28 | -114.99 | 20668 | | 253 02:24:16 | 176.26 | 10094 | |
| 253 05:01:29 | -169.53 | 29599 | | 253 04:42:42 | -140.31 | 20669 | | 253 04:06:21 | 150.74 | 10095 | |
| 253 06:43:30 | 164.96 | 29600 | | 253 06:23:55 | -165.61 | 20670 | | 253 05:48:26 | 125.22 | 10096 | |
| 253 08:25:30 | 139.47 | 29601 | | 253 08:05:08 | 169.09 | 20671 | | 253 07:30:30 | 99.71 | 10097 | |
| 253 10:07:31 | 113.96 | 29602 | | 253 09:46:21 | 143.78 | 20672 | | 253 09:12:35 | 74.18 | 10098 | |
| 253 11:49:31 | 88.47 | 29603 | | 253 11:27:34 | 118.48 | 20673 | | 253 10:54:40 | 48.66 | 10099 | |
| 253 13:31:32 | 62.97 | 29604 | | 253 13:08:47 | 93.18 | 20674 | | 253 12:36:45 | 23.14 | 10100 | |
| 253 15:13:32 | 37.47 | 29605 | | 253 14:50:01 | 67.86 | 20675 | | 253 14:18:50 | -2.38 | 10101 | |
| 253 16:55:33 | 11.97 | 29606 | | 253 16:31:14 | 42.56 | 20676 | | 253 16:00:54 | -27.89 | 10102 | |
| 253 18:37:33 | -13.53 | 29607 | | 253 18:12:27 | 17.25 | 20677 | | 253 17:42:59 | -53.41 | 10103 | |
| 253 20:19:34 | -39.03 | 29608 | | 253 19:53:40 | -8.05 | 20678 | | 253 19:25:04 | -78.93 | 10104 | |
| 253 22:01:34 | -64.52 | 29609 | | 253 21:34:53 | -33.35 | 20679 | | 253 21:07:09 | -104.46 | 10105 | |
| 253 23:43:35 | -90.03 | 29610 | | 253 23:16:07 | -58.67 | 20680 | | 253 22:49:13 | -129.96 | 10106 | |
| 254 01:25:35 | -115.52 | 29611 | | 254 00:57:20 | -83.97 | 20681 | | 254 00:31:18 | -155.49 | 10107 | |
| 254 03:07:36 | -141.03 | 29612 | | 254 02:38:33 | -109.27 | 20682 | | 254 02:13:23 | 178.99 | 10108 | |
| 254 04:49:36 | -166.52 | 29613 | | 254 04:19:46 | -134.58 | 20683 | | 254 03:55:28 | 153.47 | 10109 | |
| 254 06:31:37 | 167.97 | 29614 | | 254 06:00:59 | -159.88 | 20684 | | 254 05:37:33 | 127.95 | 10110 | |
| 254 08:13:37 | 142.48 | 29615 | | 254 07:42:12 | 174.82 | 20685 | | 254 07:19:37 | 102.44 | 10111 | |
| 254 09:55:38 | 116.97 | 29616 | | 254 09:23:26 | 149.50 | 20686 | | 254 09:01:42 | 76.92 | 10112 | |
| 254 11:37:38 | 91.48 | 29617 | | 254 11:04:39 | 124.20 | 20687 | | 254 10:43:47 | 51.40 | 10113 | |
| 254 13:19:39 | 65.97 | 29618 | | 254 12:45:52 | 98.89 | 20688 | | 254 12:25:52 | 25.87 | 10114 | |
| 254 15:01:39 | 40.48 | 29619 | | 254 14:27:05 | 73.59 | 20689 | | 254 14:07:56 | .37 | 10115 | |
| 254 16:43:40 | 14.97 | 29620 | | 254 16:08:18 | 48.29 | 20690 | | 254 15:50:01 | -25.16 | 10116 | |
| 254 18:25:40 | -10.52 | 29621 | | 254 17:49:32 | 22.97 | 20691 | | 254 17:32:06 | -50.68 | 10117 | |
| 254 20:07:41 | -36.02 | 29622 | | 254 19:30:45 | -2.33 | 20692 | | 254 19:14:11 | -76.20 | 10118 | |
| 254 21:49:41 | -61.32 | 29623 | | 254 21:11:58 | -27.63 | 20693 | | 254 20:56:16 | -101.72 | 10119 | |
| 254 23:31:42 | -87.02 | 29624 | | 254 22:53:11 | -52.94 | 20694 | | 254 22:38:20 | -127.23 | 10120 | |
| 255 01:13:42 | -112.52 | 29625 | | 255 00:34:24 | -78.24 | 20695 | | 255 00:20:25 | -152.75 | 10121 | |
| 255 02:55:43 | -138.02 | 29626 | | 255 02:15:38 | -103.56 | 20696 | | 255 02:02:30 | -178.27 | 10122 | |
| 255 04:37:43 | -163.52 | 29627 | | 255 03:56:51 | -128.86 | 20697 | | 255 03:44:35 | 156.20 | 10123 | |
| 255 06:19:44 | 170.98 | 29628 | | 255 05:38:04 | -154.16 | 20698 | | 255 05:26:39 | 130.69 | 10124 | |
| 255 08:01:44 | 145.49 | 29629 | | 255 07:19:17 | -179.46 | 20699 | | 255 07:08:44 | 105.17 | 10125 | |
| 255 09:43:45 | 119.98 | 29630 | | 255 09:00:30 | 155.23 | 20700 | | 255 08:50:49 | 79.65 | 10126 | |
| 255 11:25:45 | 94.49 | 29631 | | 255 10:41:43 | 129.93 | 20701 | | 255 10:32:54 | 54.13 | 10127 | |
| 255 13:07:46 | 68.98 | 29632 | | 255 12:22:57 | 104.61 | 20702 | | 255 12:14:59 | 28.61 | 10128 | |
| 255 14:49:46 | 43.49 | 29633 | | 255 14:04:10 | 79.31 | 20703 | | 255 13:57:03 | 3.10 | 10129 | |
| 255 16:31:47 | 17.98 | 29634 | | 255 15:45:23 | 54.01 | 20704 | | 255 15:39:08 | -22.42 | 10130 | |
| 255 18:13:47 | -7.51 | 29635 | | 255 17:26:36 | 28.70 | 20705 | | 255 17:21:13 | -47.95 | 10131 | |
| 255 19:55:48 | -33.02 | 29636 | | 255 19:07:49 | 3.40 | 20706 | | 255 19:03:18 | -73.47 | 10132 | |
| 255 21:37:48 | -58.51 | 29637 | | 255 20:49:03 | -21.92 | 20707 | | 255 20:45:22 | -98.98 | 10133 | |
| 255 23:19:49 | -84.02 | 29638 | | 255 22:30:16 | -47.22 | 20708 | | 255 22:27:27 | -124.50 | 10134 | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 256 01:43:56 | -20.19 | 31213 |
| 256 03:28:51 | -46.55 | 31214 |
| 256 05:13:46 | -72.90 | 31215 |
| 256 06:58:41 | -99.25 | 31216 |
| 256 08:43:36 | -125.61 | 31217 |
| 256 10:28:30 | -151.96 | 31218 |
| 256 12:13:25 | -178.32 | 31219 |
| 256 13:58:20 | 155.33 | 31220 |
| 256 15:43:15 | 128.98 | 31221 |
| 256 17:28:10 | 102.62 | 31222 |
| 256 19:13:05 | 76.27 | 31223 |
| 256 20:57:59 | 49.91 | 31224 |
| 256 22:42:54 | 23.56 | 31225 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 256 00:34:36 | -140.09 | 5978 |
| 256 02:19:30 | -166.44 | 5979 |
| 256 04:04:24 | 167.22 | 5980 |
| 256 05:49:18 | 140.87 | 5981 |
| 256 07:34:12 | 114.52 | 5982 |
| 256 09:19:05 | 88.17 | 5983 |
| 256 11:03:59 | 61.82 | 5984 |
| 256 12:48:53 | 35.47 | 5985 |
| 256 14:33:47 | 9.12 | 5986 |
| 256 16:18:40 | -17.23 | 5987 |
| 256 18:03:34 | -43.58 | 5988 |
| 256 19:48:28 | -69.93 | 5989 |
| 256 21:33:22 | -96.28 | 5990 |
| 256 23:18:16 | -122.63 | 5991 |

| | | |
|--------------|---------|-------|
| 257 00:27:49 | -2.79 | 31226 |
| 257 02:12:44 | -29.15 | 31227 |
| 257 03:57:39 | -55.50 | 31228 |
| 257 05:42:34 | -81.85 | 31229 |
| 257 07:27:28 | -108.21 | 31230 |
| 257 09:12:23 | -134.56 | 31231 |
| 257 10:57:18 | -160.92 | 31232 |
| 257 12:42:13 | 172.73 | 31233 |
| 257 14:27:08 | 146.38 | 31234 |
| 257 16:12:03 | 120.02 | 31235 |
| 257 17:56:57 | 93.67 | 31236 |
| 257 19:41:52 | 67.31 | 31237 |
| 257 21:26:47 | 40.96 | 31238 |
| 257 23:11:42 | 14.61 | 31239 |

| | | |
|--------------|---------|------|
| 257 01:03:09 | -148.98 | 5992 |
| 257 02:48:03 | -175.33 | 5993 |
| 257 04:32:57 | 158.32 | 5994 |
| 257 06:17:51 | 131.97 | 5995 |
| 257 08:02:44 | 105.62 | 5996 |
| 257 09:47:38 | 79.27 | 5997 |
| 257 11:32:32 | 52.92 | 5998 |
| 257 13:17:26 | 26.58 | 5999 |
| 257 15:02:19 | .22 | 6000 |
| 257 16:47:13 | -26.13 | 6001 |
| 257 18:32:07 | -52.47 | 6002 |
| 257 20:17:01 | -78.82 | 6003 |
| 257 22:01:55 | -105.17 | 6004 |
| 257 23:46:48 | -131.52 | 6005 |

| | | |
|--------------|---------|-------|
| 258 00:56:37 | -11.75 | 31240 |
| 258 02:41:31 | -38.10 | 31241 |
| 258 04:26:26 | -64.46 | 31242 |
| 258 06:11:21 | -90.81 | 31243 |
| 258 07:56:16 | -117.16 | 31244 |
| 258 09:41:11 | -143.52 | 31245 |
| 258 11:26:06 | -169.87 | 31246 |
| 258 13:11:00 | 163.77 | 31247 |
| 258 14:55:55 | 137.42 | 31248 |
| 258 16:40:50 | 111.07 | 31249 |
| 258 18:25:45 | 84.71 | 31250 |
| 258 20:10:40 | 58.36 | 31251 |
| 258 21:55:35 | 32.01 | 31252 |
| 258 23:40:29 | 5.65 | 31253 |

| | | |
|--------------|---------|------|
| 258 01:31:42 | -157.87 | 6006 |
| 258 03:16:36 | 175.78 | 6007 |
| 258 05:01:30 | 149.43 | 6008 |
| 258 06:46:23 | 123.08 | 6009 |
| 258 08:31:17 | 96.73 | 6010 |
| 258 10:16:11 | 70.38 | 6011 |
| 258 12:01:05 | 44.03 | 6012 |
| 258 13:45:59 | 17.68 | 6013 |
| 258 15:30:52 | -8.67 | 6014 |
| 258 17:15:46 | -35.02 | 6015 |
| 258 19:00:40 | -61.37 | 6016 |
| 258 20:45:34 | -87.72 | 6017 |
| 258 22:30:27 | -114.07 | 6018 |

| | | |
|--------------|---------|-------|
| 259 01:25:24 | -20.70 | 31254 |
| 259 03:10:19 | -47.06 | 31255 |
| 259 04:55:14 | -73.41 | 31256 |
| 259 06:40:09 | -99.76 | 31257 |
| 259 08:25:03 | -126.12 | 31258 |
| 259 10:09:58 | -152.47 | 31259 |
| 259 11:54:53 | -178.83 | 31260 |
| 259 13:39:48 | 154.82 | 31261 |
| 259 15:24:43 | 128.47 | 31262 |
| 259 17:09:38 | 102.11 | 31263 |
| 259 18:54:32 | 75.76 | 31264 |
| 259 20:39:27 | 49.40 | 31265 |
| 259 22:24:22 | 23.05 | 31266 |

| | | |
|--------------|---------|------|
| 259 00:15:21 | -140.42 | 6019 |
| 259 02:00:15 | -166.77 | 6020 |
| 259 03:45:09 | 166.89 | 6021 |
| 259 05:30:03 | 140.54 | 6022 |
| 259 07:14:56 | 114.18 | 6023 |
| 259 08:59:50 | 87.84 | 6024 |
| 259 10:44:44 | 61.49 | 6025 |
| 259 12:29:38 | 35.14 | 6026 |
| 259 14:14:31 | 8.79 | 6027 |
| 259 15:59:25 | -17.56 | 6028 |
| 259 17:44:19 | -43.91 | 6029 |
| 259 19:29:13 | -70.26 | 6030 |
| 259 21:14:06 | -96.61 | 6031 |
| 259 22:59:00 | -122.96 | 6032 |

| SATELLITE S2 | | | | SATELLITE S3 | | | | SATELLITE S4 | | | |
|----------------------------|---------|-------|--------------|----------------------------|-------|--------------|---------|----------------------------|-----|----------|--------|
| Ascending Node Predictions | | | | Ascending Node Predictions | | | | Ascending Node Predictions | | | |
| Predicting for 184 days | | | | Predicting for 184 days | | | | Predicting for 184 days | | | |
| TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | TIME (GMT) | E LONG | ORBIT | day | hr mn sc | deg dg |
| day | hr | mn | sc | deg | dg | day | hr | mn | sc | deg | dg |
| 256 01:01:49 | -109.51 | 29639 | 256 00:11:29 | -72.32 | 20709 | 256 00:09:32 | -150.02 | 10135 | | | |
| 256 02:43:50 | -135.01 | 29640 | 256 01:52:42 | -97.82 | 20710 | 256 01:51:37 | -175.54 | 10136 | | | |
| 256 04:25:50 | -160.51 | 29641 | 256 03:33:55 | -123.13 | 20711 | 256 03:33:42 | 158.94 | 10137 | | | |
| 256 06:07:51 | 173.99 | 29642 | 256 05:15:08 | -148.43 | 20712 | 256 05:15:46 | 133.43 | 10138 | | | |
| 256 07:49:51 | 148.49 | 29643 | 256 06:56:22 | -173.75 | 20713 | 256 06:57:51 | 107.91 | 10139 | | | |
| 256 09:31:52 | 122.99 | 29644 | 256 08:37:35 | 160.95 | 20714 | 256 08:39:56 | 82.38 | 10140 | | | |
| 256 11:13:52 | 97.49 | 29645 | 256 10:18:48 | 135.65 | 20715 | 256 10:22:01 | 56.86 | 10141 | | | |
| 256 12:55:53 | 71.99 | 29646 | 256 12:00:01 | 110.34 | 20716 | 256 12:04:05 | 31.35 | 10142 | | | |
| 256 14:37:53 | 46.50 | 29647 | 256 13:41:14 | 85.04 | 20717 | 256 13:46:10 | 5.83 | 10143 | | | |
| 256 16:19:54 | 20.99 | 29648 | 256 15:22:28 | 59.72 | 20718 | 256 15:28:15 | -19.69 | 10144 | | | |
| 256 18:01:54 | -4.50 | 29649 | 256 17:03:41 | 34.42 | 20719 | 256 17:10:20 | -45.21 | 10145 | | | |
| 256 19:43:55 | -30.01 | 29650 | 256 18:44:54 | 9.12 | 20720 | 256 18:52:24 | -70.72 | 10146 | | | |
| 256 21:25:55 | -55.50 | 29651 | 256 20:26:07 | -16.18 | 20721 | 256 20:34:29 | -96.24 | 10147 | | | |
| 256 23:07:56 | -81.01 | 29652 | 256 22:07:20 | -41.49 | 20722 | 256 22:16:34 | -121.76 | 10148 | | | |
| | | | 256 23:48:33 | -66.79 | 20723 | 256 23:58:39 | -147.29 | 10149 | | | |
| 257 00:49:56 | -106.50 | 29653 | 257 01:29:47 | -92.11 | 20724 | 257 01:40:44 | -172.81 | 10150 | | | |
| 257 02:31:57 | -132.01 | 29654 | 257 03:11:00 | -117.41 | 20725 | 257 03:22:48 | 161.68 | 10151 | | | |
| 257 04:13:57 | -157.50 | 29655 | 257 04:52:13 | -142.71 | 20726 | 257 05:04:53 | 136.16 | 10152 | | | |
| 257 05:55:58 | 176.99 | 29656 | 257 06:33:26 | -168.02 | 20727 | 257 06:46:58 | 110.64 | 10153 | | | |
| 257 07:37:58 | 151.50 | 29657 | 257 08:14:39 | 166.68 | 20728 | 257 08:29:03 | 85.12 | 10154 | | | |
| 257 09:19:59 | 125.99 | 29658 | 257 09:55:53 | 141.37 | 20729 | 257 10:11:07 | 59.61 | 10155 | | | |
| 257 11:01:59 | 100.50 | 29659 | 257 11:37:06 | 116.06 | 20730 | 257 11:53:12 | 34.09 | 10156 | | | |
| 257 12:44:00 | 75.00 | 29660 | 257 13:18:19 | 90.76 | 20731 | 257 13:35:17 | 8.56 | 10157 | | | |
| 257 14:26:00 | 49.50 | 29661 | 257 14:59:32 | 65.46 | 20732 | 257 15:17:22 | -16.96 | 10158 | | | |
| 257 16:08:01 | 24.00 | 29662 | 257 16:40:45 | 40.15 | 20733 | 257 16:59:27 | -42.48 | 10159 | | | |
| 257 17:50:01 | -1.50 | 29663 | 257 18:21:58 | 14.85 | 20734 | 257 18:41:31 | -67.99 | 10160 | | | |
| 257 19:32:02 | -27.00 | 29664 | 257 20:03:12 | -10.47 | 20735 | 257 20:23:36 | -93.51 | 10161 | | | |
| 257 21:14:02 | -52.49 | 29665 | 257 21:44:25 | -35.77 | 20736 | 257 22:05:41 | -119.03 | 10162 | | | |
| 257 22:56:03 | -78.00 | 29666 | 257 23:25:38 | -61.07 | 20737 | 257 23:47:46 | -144.55 | 10163 | | | |
| 258 00:38:03 | -103.49 | 29667 | 258 01:06:51 | -86.38 | 20738 | 258 01:29:50 | -170.06 | 10164 | | | |
| 258 02:20:04 | -129.00 | 29668 | 258 02:48:04 | -111.68 | 20739 | 258 03:11:55 | 164.42 | 10165 | | | |
| 258 04:02:04 | -154.49 | 29669 | 258 04:29:18 | -136.99 | 20740 | 258 04:54:00 | 138.89 | 10166 | | | |
| 258 05:44:05 | -180.00 | 29670 | 258 06:10:31 | -162.30 | 20741 | 258 06:36:05 | 113.37 | 10167 | | | |
| 258 07:26:05 | 154.51 | 29671 | 258 07:51:44 | 172.40 | 20742 | 258 08:18:10 | 87.85 | 10168 | | | |
| 258 09:08:06 | 129.00 | 29672 | 258 09:32:57 | 147.10 | 20743 | 258 10:00:14 | 62.34 | 10169 | | | |
| 258 10:50:07 | 103.50 | 29673 | 258 11:14:10 | 121.79 | 20744 | 258 11:42:19 | 36.82 | 10170 | | | |
| 258 12:32:07 | 78.00 | 29674 | 258 12:55:23 | 96.49 | 20745 | 258 13:24:24 | 11.30 | 10171 | | | |
| 258 14:14:08 | 52.50 | 29675 | 258 14:36:37 | 71.17 | 20746 | 258 15:06:29 | -14.22 | 10172 | | | |
| 258 15:56:08 | 27.00 | 29676 | 258 16:17:50 | 45.87 | 20747 | 258 16:48:33 | -39.73 | 10173 | | | |
| 258 17:38:09 | 1.50 | 29677 | 258 17:59:03 | 20.57 | 20748 | 258 18:30:38 | -65.26 | 10174 | | | |
| 258 19:20:09 | -23.99 | 29678 | 258 19:40:16 | -4.73 | 20749 | 258 20:12:43 | -90.78 | 10175 | | | |
| 258 21:02:10 | -49.50 | 29679 | 258 21:21:29 | -30.04 | 20750 | 258 21:54:48 | -116.30 | 10176 | | | |
| 258 22:44:10 | -74.99 | 29680 | 258 23:02:43 | -55.35 | 20751 | 258 23:36:53 | -141.82 | 10177 | | | |
| 259 00:26:11 | -100.50 | 29681 | 259 00:43:56 | -80.66 | 20752 | 259 01:18:57 | -167.33 | 10178 | | | |
| 259 02:08:11 | -125.99 | 29682 | 259 02:25:09 | -105.96 | 20753 | 259 03:01:02 | 167.15 | 10179 | | | |
| 259 03:50:12 | -151.50 | 29683 | 259 04:06:22 | -131.26 | 20754 | 259 04:43:07 | 141.63 | 10180 | | | |
| 259 05:32:12 | -176.99 | 29684 | 259 05:47:35 | -156.57 | 20755 | 259 06:25:12 | 116.10 | 10181 | | | |
| 259 07:14:13 | 157.50 | 29685 | 259 07:28:49 | 178.12 | 20756 | 259 08:07:16 | 90.60 | 10182 | | | |
| 259 08:56:13 | 132.01 | 29686 | 259 09:10:02 | 152.81 | 20757 | 259 09:49:21 | 65.07 | 10183 | | | |
| 259 10:38:14 | 106.50 | 29687 | 259 10:51:15 | 127.51 | 20758 | 259 11:31:26 | 39.55 | 10184 | | | |
| 259 12:20:14 | 81.01 | 29688 | 259 12:32:28 | 102.21 | 20759 | 259 13:13:31 | 14.03 | 10185 | | | |
| 259 14:02:15 | 55.50 | 29689 | 259 14:13:41 | 76.91 | 20760 | 259 14:55:36 | -11.49 | 10186 | | | |
| 259 15:44:15 | 30.01 | 29690 | 259 15:54:54 | 51.60 | 20761 | 259 16:37:40 | -37.00 | 10187 | | | |
| 259 17:26:16 | 4.51 | 29691 | 259 17:36:08 | 26.29 | 20762 | 259 18:19:45 | -62.52 | 10188 | | | |
| 259 19:08:16 | -20.99 | 29692 | 259 19:17:21 | .98 | 20763 | 259 20:01:50 | -88.04 | 10189 | | | |
| 259 20:50:17 | -46.49 | 29693 | 259 20:58:34 | -24.32 | 20764 | 259 21:43:55 | -113.57 | 10190 | | | |
| 259 22:32:17 | -71.99 | 29694 | 259 22:39:47 | -49.62 | 20765 | 259 23:25:59 | -139.07 | 10191 | | | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 260 00:09:17 | -3.30 | 31267 |
| 260 01:54:12 | -29.66 | 31268 |
| 260 03:39:07 | -56.01 | 31269 |
| 260 05:24:01 | -82.37 | 31270 |
| 260 07:08:56 | -108.72 | 31271 |
| 260 08:53:51 | -135.07 | 31272 |
| 260 10:38:46 | -161.43 | 31273 |
| 260 12:23:41 | -172.22 | 31274 |
| 260 14:08:35 | -145.86 | 31275 |
| 260 15:53:30 | -119.51 | 31276 |
| 260 17:38:25 | -93.16 | 31277 |
| 260 19:23:20 | -66.80 | 31278 |
| 260 21:08:15 | -40.45 | 31279 |
| 260 22:53:10 | -14.10 | 31280 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 260 00:43:54 | -149.31 | 6033 |
| 260 02:28:48 | -175.66 | 6034 |
| 260 04:13:42 | 157.99 | 6035 |
| 260 05:58:35 | 131.64 | 6036 |
| 260 07:43:29 | 105.29 | 6037 |
| 260 09:28:23 | 78.94 | 6038 |
| 260 11:13:17 | 52.59 | 6039 |
| 260 12:58:10 | 26.24 | 6040 |
| 260 14:43:04 | -11 | 6041 |
| 260 16:27:58 | -26.46 | 6042 |
| 260 18:12:52 | -52.80 | 6043 |
| 260 19:57:46 | -79.15 | 6044 |
| 260 21:42:39 | -105.51 | 6045 |
| 260 23:27:33 | -131.85 | 6046 |

| | | |
|--------------|---------|-------|
| 261 00:38:04 | -12.26 | 31281 |
| 261 02:22:59 | -38.61 | 31282 |
| 261 04:07:54 | -64.97 | 31283 |
| 261 05:52:49 | -91.32 | 31284 |
| 261 07:37:44 | -117.67 | 31285 |
| 261 09:22:39 | -144.03 | 31286 |
| 261 11:07:33 | -170.38 | 31287 |
| 261 12:52:28 | -163.26 | 31288 |
| 261 14:37:23 | -136.91 | 31289 |
| 261 16:22:18 | -110.56 | 31290 |
| 261 18:07:13 | -84.20 | 31291 |
| 261 19:52:07 | -57.85 | 31292 |
| 261 21:37:02 | -31.49 | 31293 |
| 261 23:21:57 | 5.14 | 31294 |

| | | |
|--------------|---------|------|
| 261 01:12:27 | -158.20 | 6047 |
| 261 02:57:21 | 175.45 | 6048 |
| 261 04:42:14 | 149.10 | 6049 |
| 261 06:27:08 | 122.75 | 6050 |
| 261 08:12:02 | 96.40 | 6051 |
| 261 09:56:56 | 70.05 | 6052 |
| 261 11:41:50 | 43.70 | 6053 |
| 261 13:26:43 | 17.35 | 6054 |
| 261 15:11:37 | -9.00 | 6055 |
| 261 16:56:31 | -35.35 | 6056 |
| 261 18:41:25 | -61.70 | 6057 |
| 261 20:26:18 | -88.05 | 6058 |
| 261 22:11:12 | -114.40 | 6059 |
| 261 23:56:06 | -140.75 | 6060 |

| | | |
|--------------|---------|-------|
| 262 01:06:52 | -21.21 | 31295 |
| 262 02:51:47 | -47.57 | 31296 |
| 262 04:36:42 | -73.92 | 31297 |
| 262 06:21:36 | -100.28 | 31298 |
| 262 08:06:31 | -126.63 | 31299 |
| 262 09:51:26 | -152.98 | 31300 |
| 262 11:36:21 | -179.34 | 31301 |
| 262 13:21:16 | -154.31 | 31302 |
| 262 15:06:10 | -127.95 | 31303 |
| 262 16:51:05 | -101.60 | 31304 |
| 262 18:36:00 | -75.25 | 31305 |
| 262 20:20:55 | -48.89 | 31306 |
| 262 22:05:50 | -22.54 | 31307 |
| 262 23:50:45 | -3.81 | 31308 |

| | | |
|--------------|---------|------|
| 262 01:41:00 | -167.10 | 6061 |
| 262 03:25:53 | 166.55 | 6062 |
| 262 05:10:47 | 140.20 | 6063 |
| 262 06:55:41 | 113.85 | 6064 |
| 262 08:40:35 | 87.51 | 6065 |
| 262 10:25:29 | 61.16 | 6066 |
| 262 12:10:22 | 34.81 | 6067 |
| 262 13:55:16 | 8.46 | 6068 |
| 262 15:40:10 | -17.89 | 6069 |
| 262 17:25:04 | -44.24 | 6070 |
| 262 19:09:57 | -70.59 | 6071 |
| 262 20:54:51 | -96.94 | 6072 |
| 262 22:39:45 | -123.29 | 6073 |

| | | |
|--------------|---------|-------|
| 263 01:35:39 | -30.17 | 31309 |
| 263 03:20:34 | -56.52 | 31310 |
| 263 05:05:29 | -82.98 | 31311 |
| 263 06:50:24 | -109.23 | 31312 |
| 263 08:35:19 | -135.58 | 31313 |
| 263 10:20:13 | -161.94 | 31314 |
| 263 12:05:08 | -171.71 | 31315 |
| 263 13:50:03 | -145.35 | 31316 |
| 263 15:34:58 | -119.00 | 31317 |
| 263 17:19:53 | -92.65 | 31318 |
| 263 19:04:48 | -66.29 | 31319 |
| 263 20:49:42 | -39.94 | 31320 |
| 263 22:34:37 | -13.58 | 31321 |

| | | |
|--------------|---------|------|
| 263 00:24:39 | -149.64 | 6074 |
| 263 02:09:32 | -175.99 | 6075 |
| 263 03:54:26 | 157.66 | 6076 |
| 263 05:39:20 | 131.31 | 6077 |
| 263 07:24:14 | 104.96 | 6078 |
| 263 09:09:08 | 78.61 | 6079 |
| 263 10:54:01 | 52.26 | 6080 |
| 263 12:38:55 | 25.91 | 6081 |
| 263 14:23:49 | -44 | 6082 |
| 263 16:08:43 | -26.79 | 6083 |
| 263 17:53:36 | -53.14 | 6084 |
| 263 19:38:30 | -79.49 | 6085 |
| 263 21:23:24 | -105.83 | 6086 |
| 263 23:08:18 | -132.18 | 6087 |

| SATELLITE S2 | | | | | | | SATELLITE S3 | | | | | | | SATELLITE S4 | | | | | | |
|----------------------------|---------|-------|-------|--------------|---------|-------|----------------------------|--------------|---------|-------|-------|------------|----|----------------------------|-------|------------|----|------|-------|--|
| Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | | Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | | Predicting for 184 days | | | | | | |
| TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | TIME (GMT) | E | LONG | ORBIT | |
| day | hr | mn | sc | day | hr | mn | sc | day | hr | mn | sc | day | hr | mn | sc | day | hr | mn | sc | |
| deg | dg | | | deg | dg | | | deg | dg | | | deg | dg | | | deg | dg | | | |
| 260 00:14:18 | -97.49 | 29693 | | 260 00:21:00 | -74.93 | 20766 | | 260 01:08:04 | -164.60 | 10192 | | | | | | | | | | |
| 260 01:56:18 | -122.99 | 29696 | | 260 02:02:14 | -100.24 | 20767 | | 260 02:50:09 | 169.98 | 10193 | | | | | | | | | | |
| 260 03:38:19 | -148.49 | 29697 | | 260 03:43:27 | -125.54 | 20768 | | 260 04:32:14 | 144.36 | 10194 | | | | | | | | | | |
| 260 05:20:19 | -173.98 | 29698 | | 260 05:24:40 | -150.85 | 20769 | | 260 06:14:18 | 118.85 | 10195 | | | | | | | | | | |
| 260 07:02:20 | 160.51 | 29699 | | 260 07:05:53 | -176.15 | 20770 | | 260 07:56:23 | 93.33 | 10196 | | | | | | | | | | |
| 260 08:44:20 | 135.02 | 29700 | | 260 08:47:06 | 158.55 | 20771 | | 260 09:38:28 | 67.81 | 10197 | | | | | | | | | | |
| 260 10:26:21 | 109.51 | 29701 | | 260 10:28:19 | 133.24 | 20772 | | 260 11:20:33 | 42.28 | 10198 | | | | | | | | | | |
| 260 12:08:21 | 84.02 | 29702 | | 260 12:09:33 | 107.93 | 20773 | | 260 13:02:38 | 16.76 | 10199 | | | | | | | | | | |
| 260 13:50:22 | 58.51 | 29703 | | 260 13:50:46 | 82.62 | 20774 | | 260 14:44:42 | -8.75 | 10200 | | | | | | | | | | |
| 260 15:32:22 | 33.02 | 29704 | | 260 15:31:59 | 57.32 | 20775 | | 260 16:26:47 | -34.27 | 10201 | | | | | | | | | | |
| 260 17:14:23 | 7.51 | 29705 | | 260 17:13:12 | 32.02 | 20776 | | 260 18:08:52 | -59.79 | 10202 | | | | | | | | | | |
| 260 18:56:23 | -17.98 | 29706 | | 260 18:54:25 | 6.71 | 20777 | | 260 19:50:57 | -85.31 | 10203 | | | | | | | | | | |
| 260 20:38:24 | -43.49 | 29707 | | 260 20:35:39 | -18.60 | 20778 | | 260 21:33:01 | -110.82 | 10204 | | | | | | | | | | |
| 260 22:20:24 | -68.98 | 29708 | | 260 22:16:52 | -43.90 | 20779 | | 260 23:15:06 | -136.34 | 10205 | | | | | | | | | | |
| 260 23:58:05 | -69.21 | 20780 | | | | | | | | | | | | | | | | | | |
| 261 00:02:25 | -94.49 | 29709 | | 261 01:39:18 | -94.51 | 20781 | | 261 00:57:11 | -161.86 | 10206 | | | | | | | | | | |
| 261 01:44:25 | -119.98 | 29710 | | 261 03:20:31 | -119.81 | 20782 | | 261 02:39:16 | 172.61 | 10207 | | | | | | | | | | |
| 261 03:26:26 | -145.48 | 29711 | | 261 05:01:44 | -145.12 | 20783 | | 261 04:21:21 | 147.09 | 10208 | | | | | | | | | | |
| 261 05:08:26 | -170.98 | 29712 | | 261 06:42:58 | -170.43 | 20784 | | 261 06:03:25 | 121.58 | 10209 | | | | | | | | | | |
| 261 06:50:27 | 163.52 | 29713 | | 261 08:24:11 | 164.26 | 20785 | | 261 07:45:30 | 96.06 | 10210 | | | | | | | | | | |
| 261 08:32:27 | 138.02 | 29714 | | 261 10:05:24 | 138.96 | 20786 | | 261 09:27:35 | 70.54 | 10211 | | | | | | | | | | |
| 261 10:14:28 | 112.52 | 29715 | | 261 11:46:37 | 113.66 | 20787 | | 261 11:09:40 | 45.02 | 10212 | | | | | | | | | | |
| 261 11:56:28 | 87.02 | 29716 | | 261 13:27:50 | 88.35 | 20788 | | 261 12:51:44 | 19.51 | 10213 | | | | | | | | | | |
| 261 13:38:29 | 61.52 | 29717 | | 261 15:09:04 | 63.04 | 20789 | | 261 14:33:49 | -6.01 | 10214 | | | | | | | | | | |
| 261 15:20:29 | 36.03 | 29718 | | 261 16:50:17 | 37.74 | 20790 | | 261 16:15:54 | -31.53 | 10215 | | | | | | | | | | |
| 261 17:02:30 | 10.52 | 29719 | | 261 18:31:30 | 12.43 | 20791 | | 261 17:57:59 | -57.06 | 10216 | | | | | | | | | | |
| 261 18:44:30 | -14.97 | 29720 | | 261 20:12:43 | -12.87 | 20792 | | 261 19:40:04 | -82.58 | 10217 | | | | | | | | | | |
| 261 20:26:31 | -40.48 | 29721 | | 261 21:53:56 | -38.17 | 20793 | | 261 21:22:08 | -108.09 | 10218 | | | | | | | | | | |
| 261 22:08:31 | -65.97 | 29722 | | 261 23:35:09 | -63.48 | 20794 | | 261 23:04:13 | -133.61 | 10219 | | | | | | | | | | |
| 261 23:50:32 | -91.48 | 29723 | | | | | | | | | | | | | | | | | | |
| 262 01:32:32 | -116.97 | 29724 | | 262 01:16:23 | -88.79 | 20795 | | 262 00:46:18 | -139.13 | 10220 | | | | | | | | | | |
| 262 03:14:33 | -142.48 | 29725 | | 262 02:57:36 | -114.10 | 20796 | | 262 02:28:23 | 175.35 | 10221 | | | | | | | | | | |
| 262 04:56:33 | -167.97 | 29726 | | 262 04:38:49 | -139.40 | 20797 | | 262 04:10:27 | 149.84 | 10222 | | | | | | | | | | |
| 262 06:38:34 | 166.52 | 29727 | | 262 06:20:02 | -164.70 | 20798 | | 262 05:52:32 | 124.32 | 10223 | | | | | | | | | | |
| 262 08:20:34 | 141.03 | 29728 | | 262 08:01:15 | 170.00 | 20799 | | 262 07:34:37 | 98.79 | 10224 | | | | | | | | | | |
| 262 10:02:35 | 115.52 | 29729 | | 262 09:42:29 | 144.68 | 20800 | | 262 09:16:42 | 73.27 | 10225 | | | | | | | | | | |
| 262 11:44:35 | 90.03 | 29730 | | 262 11:23:42 | 119.38 | 20801 | | 262 10:58:47 | 47.75 | 10226 | | | | | | | | | | |
| 262 13:26:36 | 64.53 | 29731 | | 262 13:04:55 | 94.07 | 20802 | | 262 12:40:51 | 22.24 | 10227 | | | | | | | | | | |
| 262 15:08:36 | 39.03 | 29732 | | 262 14:46:08 | 68.77 | 20803 | | 262 14:22:56 | -3.28 | 10228 | | | | | | | | | | |
| 262 16:50:37 | 13.53 | 29733 | | 262 16:27:21 | 43.47 | 20804 | | 262 16:05:01 | -28.80 | 10229 | | | | | | | | | | |
| 262 18:32:37 | -11.97 | 29734 | | 262 18:08:35 | 18.15 | 20805 | | 262 17:47:06 | -54.32 | 10230 | | | | | | | | | | |
| 262 20:14:38 | -37.47 | 29735 | | 262 19:49:48 | -7.15 | 20806 | | 262 19:29:10 | -79.83 | 10231 | | | | | | | | | | |
| 262 21:56:38 | -62.97 | 29736 | | 262 21:31:01 | -32.46 | 20807 | | 262 21:11:15 | -105.35 | 10232 | | | | | | | | | | |
| 262 23:38:39 | -88.47 | 29737 | | 262 23:12:14 | -57.76 | 20808 | | 262 22:53:20 | -130.88 | 10233 | | | | | | | | | | |
| 263 01:20:39 | -113.96 | 29738 | | 263 00:53:27 | -83.06 | 20809 | | 263 00:35:25 | -156.40 | 10234 | | | | | | | | | | |
| 263 03:02:40 | -139.47 | 29739 | | 263 02:34:40 | -108.36 | 20810 | | 263 02:17:29 | 178.09 | 10235 | | | | | | | | | | |
| 263 04:44:40 | -164.96 | 29740 | | 263 04:15:54 | -133.68 | 20811 | | 263 03:59:34 | 152.57 | 10236 | | | | | | | | | | |
| 263 06:26:41 | 169.53 | 29741 | | 263 05:57:07 | -158.98 | 20812 | | 263 05:41:39 | 127.05 | 10237 | | | | | | | | | | |
| 263 08:08:41 | 144.04 | 29742 | | 263 07:38:20 | 175.71 | 20813 | | 263 07:23:44 | 101.53 | 10238 | | | | | | | | | | |
| 263 09:50:42 | 118.53 | 29743 | | 263 09:19:33 | 150.41 | 20814 | | 263 09:05:49 | 76.01 | 10239 | | | | | | | | | | |
| 263 11:32:42 | 93.04 | 29744 | | 263 11:00:46 | 125.11 | 20815 | | 263 10:47:53 | 50.50 | 10240 | | | | | | | | | | |
| 263 13:14:43 | 67.53 | 29745 | | 263 12:42:00 | 99.79 | 20816 | | 263 12:29:58 | 24.97 | 10241 | | | | | | | | | | |
| 263 14:56:43 | 42.04 | 29746 | | 263 14:23:13 | 74.49 | 20817 | | 263 14:12:03 | -.55 | 10242 | | | | | | | | | | |
| 263 16:38:44 | 16.53 | 29747 | | 263 16:04:26 | 49.19 | 20818 | | 263 15:54:08 | -26.07 | 10243 | | | | | | | | | | |
| 263 18:20:44 | -8.96 | 29748 | | 263 17:45:39 | 23.88 | 20819 | | 263 17:36:12 | -51.58 | 10244 | | | | | | | | | | |
| 263 20:02:45 | -34.47 | 29749 | | 263 19:26:52 | -1.42 | 20820 | | 263 19:18:17 | -77.10 | 10245 | | | | | | | | | | |
| 263 21:44:45 | -59.96 | 29750 | | 263 21:08:05 | -26.72 | 20821 | | 263 21:00:22 | -102.62 | 10246 | | | | | | | | | | |
| 263 23:26:46 | -85.46 | 29751 | | 263 22:49:19 | -52.04 | 20822 | | 263 22:42:27 | -128.14 | 10247 | | | | | | | | | | |

SATELLITE C3
Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 264 00:19:32 | -12.77 | 31322 |
| 264 02:04:27 | -39.12 | 31323 |
| 264 03:49:22 | -65.48 | 31324 |
| 264 05:34:17 | -91.83 | 31325 |
| 264 07:19:11 | -118.19 | 31326 |
| 264 09:04:06 | -144.54 | 31327 |
| 264 10:49:01 | -170.89 | 31328 |
| 264 12:33:56 | 162.75 | 31329 |
| 264 14:18:51 | 136.40 | 31330 |
| 264 16:03:45 | 110.04 | 31331 |
| 264 17:48:40 | 83.69 | 31332 |
| 264 19:33:35 | 57.34 | 31333 |
| 264 21:18:30 | 30.98 | 31334 |
| 264 23:03:25 | 4.63 | 31335 |

SATELLITE C4
Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 264 00:53:12 | -158.53 | 6088 |
| 264 02:38:05 | 175.12 | 6089 |
| 264 04:22:59 | 148.77 | 6090 |
| 264 06:07:53 | 122.42 | 6091 |
| 264 07:52:47 | 96.07 | 6092 |
| 264 09:37:40 | 69.72 | 6093 |
| 264 11:22:34 | 43.37 | 6094 |
| 264 13:07:28 | 17.02 | 6095 |
| 264 14:52:22 | -9.33 | 6096 |
| 264 16:37:15 | -35.68 | 6097 |
| 264 18:22:09 | -62.03 | 6098 |
| 264 20:07:03 | -88.38 | 6099 |
| 264 21:51:57 | -114.73 | 6100 |
| 264 23:36:51 | -141.08 | 6101 |

| | | |
|--------------|---------|-------|
| 265 00:48:20 | -21.72 | 31336 |
| 265 02:33:14 | -48.08 | 31337 |
| 265 04:18:09 | -74.43 | 31338 |
| 265 06:03:04 | -100.79 | 31339 |
| 265 07:47:59 | -127.14 | 31340 |
| 265 09:32:54 | -153.49 | 31341 |
| 265 11:17:48 | -179.85 | 31342 |
| 265 13:02:43 | 153.80 | 31343 |
| 265 14:47:38 | 127.44 | 31344 |
| 265 16:32:33 | 101.09 | 31345 |
| 265 18:17:28 | 74.74 | 31346 |
| 265 20:02:23 | 48.38 | 31347 |
| 265 21:47:17 | 22.03 | 31348 |
| 265 23:32:12 | -4.32 | 31349 |

| | | |
|--------------|---------|------|
| 265 01:21:44 | -167.93 | 6102 |
| 265 03:06:38 | 166.22 | 6103 |
| 265 04:51:32 | 139.87 | 6104 |
| 265 06:36:26 | 113.53 | 6105 |
| 265 08:21:19 | 87.17 | 6106 |
| 265 10:06:13 | 60.83 | 6107 |
| 265 11:51:07 | 34.48 | 6108 |
| 265 13:36:01 | 8.13 | 6109 |
| 265 15:20:54 | -18.22 | 6110 |
| 265 17:05:48 | -44.57 | 6111 |
| 265 18:50:42 | -70.92 | 6112 |
| 265 20:35:36 | -97.27 | 6113 |
| 265 22:20:30 | -123.62 | 6114 |

| | | |
|--------------|---------|-------|
| 266 01:17:07 | -30.68 | 31350 |
| 266 03:02:02 | -57.03 | 31351 |
| 266 04:46:57 | -83.39 | 31352 |
| 266 06:31:51 | -109.74 | 31353 |
| 266 08:16:46 | -136.09 | 31354 |
| 266 10:01:41 | -162.45 | 31355 |
| 266 11:46:36 | 171.20 | 31356 |
| 266 13:31:31 | 144.85 | 31357 |
| 266 15:16:26 | 118.49 | 31358 |
| 266 17:01:20 | 92.14 | 31359 |
| 266 18:46:15 | 65.78 | 31360 |
| 266 20:31:10 | 39.43 | 31361 |
| 266 22:16:05 | 13.08 | 31362 |

| | | |
|--------------|---------|------|
| 266 00:05:23 | -149.97 | 6115 |
| 266 01:50:17 | -176.32 | 6116 |
| 266 03:35:11 | 157.33 | 6117 |
| 266 05:20:05 | 130.98 | 6118 |
| 266 07:04:58 | 104.63 | 6119 |
| 266 08:49:52 | 78.28 | 6120 |
| 266 10:34:46 | 51.93 | 6121 |
| 266 12:19:40 | 25.58 | 6122 |
| 266 14:04:33 | -.77 | 6123 |
| 266 15:49:27 | -27.12 | 6124 |
| 266 17:34:21 | -53.47 | 6125 |
| 266 19:19:15 | -79.81 | 6126 |
| 266 21:04:08 | -106.17 | 6127 |
| 266 22:49:02 | -132.51 | 6128 |

| | | |
|--------------|---------|-------|
| 267 00:01:00 | -13.28 | 31363 |
| 267 01:45:54 | -39.63 | 31364 |
| 267 03:30:49 | -65.99 | 31365 |
| 267 05:15:44 | -92.34 | 31366 |
| 267 07:00:39 | -118.69 | 31367 |
| 267 08:45:34 | -145.05 | 31368 |
| 267 10:30:29 | -171.40 | 31369 |
| 267 12:15:23 | 162.24 | 31370 |
| 267 14:00:18 | 135.89 | 31371 |
| 267 15:45:13 | 109.54 | 31372 |
| 267 17:30:08 | 83.18 | 31373 |
| 267 19:15:03 | 56.83 | 31374 |
| 267 20:59:57 | 30.47 | 31375 |
| 267 22:44:52 | 4.12 | 31376 |

| | | |
|--------------|---------|------|
| 267 00:33:56 | -158.86 | 6129 |
| 267 02:18:50 | 174.79 | 6130 |
| 267 04:03:44 | 148.44 | 6131 |
| 267 05:48:37 | 122.09 | 6132 |
| 267 07:33:31 | 95.74 | 6133 |
| 267 09:18:25 | 69.39 | 6134 |
| 267 11:03:19 | 43.04 | 6135 |
| 267 12:48:12 | 16.69 | 6136 |
| 267 14:33:06 | -9.66 | 6137 |
| 267 16:18:00 | -36.01 | 6138 |
| 267 18:02:54 | -62.36 | 6139 |
| 267 19:47:47 | -88.71 | 6140 |
| 267 21:32:41 | -115.06 | 6141 |
| 267 23:17:35 | -141.41 | 6142 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG** **ORBIT**
day hr mn sc **deg dg**

264 01:08:46 -110.96 29752
 264 02:50:47 -136.46 29753
 264 04:32:47 -161.96 29754
 264 06:14:48 172.54 29755
 264 07:56:48 147.05 29756
 264 09:38:49 121.54 29757
 264 11:20:49 96.05 29758
 264 13:02:50 70.54 29759
 264 14:44:50 45.05 29760
 264 16:26:51 19.54 29761
 264 18:08:51 -5.95 29762
 264 19:50:52 -31.46 29763
 264 21:32:52 -56.95 29764
 264 23:14:53 -82.46 29765

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG** **ORBIT**
day hr mn sc **deg dg**

264 00:30:32 -77.34 20823
 264 02:11:45 -102.65 20824
 264 03:52:58 -127.95 20825
 264 05:34:11 -153.25 20826
 264 07:15:25 -178.57 20827
 264 08:56:38 156.13 20828
 264 10:37:51 130.83 20829
 264 12:19:04 105.52 20830
 264 14:00:17 80.22 20831
 264 15:41:30 54.92 20832
 264 17:22:44 29.60 20833
 264 19:03:57 4.30 20834
 264 20:45:10 -21.01 20835
 264 22:26:23 -46.31 20836

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) **E LONG** **ORBIT**
day hr mn sc **deg dg**

264 00:24:32 -153.67 10248
 264 02:06:36 -179.17 10249
 264 03:48:41 155.30 10250
 264 05:30:46 129.78 10251
 264 07:12:51 104.26 10252
 264 08:54:55 78.75 10253
 264 10:37:00 53.23 10254
 264 12:19:05 27.71 10255
 264 14:01:10 2.19 10256
 264 15:43:15 -23.34 10257
 264 17:25:19 -48.84 10258
 264 19:07:24 -74.37 10259
 264 20:49:29 -99.89 10260
 264 22:31:34 -125.41 10261

265 00:56:53 -107.95 29766
 265 02:38:54 -133.46 29767
 265 04:20:54 -158.95 29768
 265 06:02:55 175.54 29769
 265 07:44:55 150.05 29770
 265 09:26:56 124.55 29771
 265 11:08:56 99.05 29772
 265 12:50:57 73.55 29773
 265 14:32:57 48.05 29774
 265 16:14:58 22.55 29775
 265 17:56:58 -2.94 29776
 265 19:38:59 -28.45 29777
 265 21:20:59 -53.94 29778
 265 23:03:00 -79.45 29779

265 00:07:36 -71.61 20837
 265 01:48:50 -96.93 20838
 265 03:30:03 -122.23 20839
 265 05:11:16 -147.53 20840
 265 06:52:29 -172.84 20841
 265 08:33:42 161.86 20842
 265 10:14:55 136.56 20843
 265 11:56:09 111.24 20844
 265 13:37:22 85.94 20845
 265 15:18:35 60.63 20846
 265 16:59:48 35.33 20847
 265 18:41:01 10.03 20848
 265 20:22:15 -15.29 20849
 265 22:03:28 -40.59 20850
 265 23:44:41 -65.89 20851

265 00:13:38 -150.92 10262
 265 01:55:43 -176.44 10263
 265 03:37:48 158.04 10264
 265 05:19:53 132.51 10265
 265 07:01:57 107.01 10266
 265 08:44:02 81.48 10267
 265 10:26:07 55.96 10268
 265 12:08:12 30.44 10269
 265 13:50:17 4.92 10270
 265 15:32:21 -20.59 10271
 265 17:14:26 -46.11 10272
 265 18:56:31 -71.63 10273
 265 20:38:36 -97.16 10274
 265 22:20:40 -122.66 10275

266 00:45:00 -104.94 29780
 266 02:27:01 -130.45 29781
 266 04:09:01 -155.94 29782
 266 05:51:02 178.55 29783
 266 07:33:02 153.06 29784
 266 09:15:03 127.55 29785
 266 10:57:03 102.06 29786
 266 12:39:04 76.55 29787
 266 14:21:04 51.06 29788
 266 16:03:05 25.55 29789
 266 17:45:05 .06 29790
 266 19:27:06 -25.44 29791
 266 21:09:06 -50.94 29792
 266 22:51:07 -76.44 29793

266 01:25:54 -91.20 20852
 266 03:07:07 -116.50 20853
 266 04:48:20 -141.80 20854
 266 06:29:34 -167.12 20855
 266 08:10:47 167.58 20856
 266 09:52:00 142.28 20857
 266 11:33:13 116.97 20858
 266 13:14:26 91.67 20859
 266 14:55:40 66.35 20860
 266 16:36:53 41.05 20861
 266 18:18:06 15.75 20862
 266 19:59:19 -9.56 20863
 266 21:40:32 -34.86 20864
 266 23:21:46 -60.18 20865

266 00:02:45 -148.19 10276
 266 01:44:50 -173.71 10277
 266 03:26:55 160.77 10278
 266 05:09:00 135.25 10279
 266 06:51:04 109.74 10280
 266 08:33:09 84.22 10281
 266 10:15:14 58.69 10282
 266 11:57:19 33.17 10283
 266 13:39:23 7.66 10284
 266 15:21:28 -17.86 10285
 266 17:03:33 -43.38 10286
 266 18:45:38 -68.90 10287
 266 20:27:43 -94.42 10288
 266 22:09:47 -119.93 10289
 266 23:51:52 -145.45 10290

267 00:33:07 -101.94 29794
 267 02:15:08 -127.44 29795
 267 03:57:08 -152.94 29796
 267 05:39:09 -178.44 29797
 267 07:21:09 156.07 29798
 267 09:03:10 130.56 29799
 267 10:45:10 105.07 29800
 267 12:27:11 79.56 29801
 267 14:09:11 54.07 29802
 267 15:51:12 28.56 29803
 267 17:33:12 3.07 29804
 267 19:15:13 -22.44 29805
 267 20:57:13 -47.93 29806
 267 22:39:14 -73.44 29807

267 01:02:59 -85.48 20866
 267 02:44:12 -110.78 20867
 267 04:25:25 -136.08 20868
 267 06:06:38 -161.39 20869
 267 07:47:51 173.31 20870
 267 09:29:03 147.99 20871
 267 11:10:18 122.69 20872
 267 12:51:31 97.39 20873
 267 14:32:44 72.08 20874
 267 16:13:57 46.78 20875
 267 17:55:11 21.47 20876
 267 19:36:24 -3.84 20877
 267 21:17:37 -29.14 20878
 267 22:58:50 -54.44 20879

267 01:33:57 -170.98 10291
 267 03:16:02 163.50 10292
 267 04:58:06 137.99 10293
 267 06:40:11 112.47 10294
 267 08:22:16 86.95 10295
 267 10:04:21 61.43 10296
 267 11:46:26 35.91 10297
 267 13:28:30 10.40 10298
 267 15:10:35 -15.12 10299
 267 16:52:40 -40.65 10300
 267 18:34:45 -66.17 10301
 267 20:16:49 -91.68 10302
 267 21:58:54 -117.20 10303
 267 23:40:59 -142.72 10304

SATELLITE C3
Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 268 00:29:47 | -22.23 | 31377 |
| 268 02:14:42 | -48.59 | 31378 |
| 268 03:59:37 | -74.94 | 31379 |
| 268 05:44:32 | -101.29 | 31380 |
| 268 07:29:26 | -127.65 | 31381 |
| 268 09:14:21 | -154.00 | 31382 |
| 268 10:59:16 | 179.64 | 31383 |
| 268 12:44:11 | 153.29 | 31384 |
| 268 14:29:06 | 126.94 | 31385 |
| 268 16:14:00 | 100.58 | 31386 |
| 268 17:58:55 | 74.23 | 31387 |
| 268 19:43:50 | 47.87 | 31388 |
| 268 21:28:45 | 21.52 | 31389 |
| 268 23:13:40 | -4.83 | 31390 |

SATELLITE C4
Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 268 01:02:29 | -167.76 | 6143 |
| 268 02:47:23 | 165.90 | 6144 |
| 268 04:32:16 | 139.54 | 6145 |
| 268 06:17:10 | 113.19 | 6146 |
| 268 08:02:04 | 86.85 | 6147 |
| 268 09:46:58 | 60.50 | 6148 |
| 268 11:31:51 | 34.15 | 6149 |
| 268 13:16:45 | 7.80 | 6150 |
| 268 15:01:39 | -18.55 | 6151 |
| 268 16:46:33 | -44.90 | 6152 |
| 268 18:31:26 | -71.25 | 6153 |
| 268 20:16:20 | -97.60 | 6154 |
| 268 22:01:14 | -123.95 | 6155 |
| 268 23:46:08 | -150.30 | 6156 |

| | | |
|--------------|---------|-------|
| 269 00:58:34 | -31.19 | 31391 |
| 269 02:43:29 | -57.54 | 31392 |
| 269 04:28:24 | -83.90 | 31393 |
| 269 06:13:19 | -110.25 | 31394 |
| 269 07:58:14 | -136.60 | 31395 |
| 269 09:43:09 | -162.96 | 31396 |
| 269 11:28:03 | 170.69 | 31397 |
| 269 13:12:58 | 144.33 | 31398 |
| 269 14:57:53 | 117.98 | 31399 |
| 269 16:42:48 | 91.63 | 31400 |
| 269 18:27:43 | 65.27 | 31401 |
| 269 20:12:37 | 38.92 | 31402 |
| 269 21:57:32 | 12.56 | 31403 |
| 269 23:42:27 | -13.79 | 31404 |

| | | |
|--------------|---------|------|
| 269 01:31:01 | -176.65 | 6157 |
| 269 03:15:55 | 157.00 | 6158 |
| 269 05:00:49 | 130.65 | 6159 |
| 269 06:45:43 | 104.30 | 6160 |
| 269 08:30:37 | 77.95 | 6161 |
| 269 10:15:30 | 51.60 | 6162 |
| 269 12:00:24 | 25.25 | 6163 |
| 269 13:45:18 | -1.10 | 6164 |
| 269 15:30:12 | -27.44 | 6165 |
| 269 17:15:05 | -53.80 | 6166 |
| 269 18:59:59 | -80.14 | 6167 |
| 269 20:44:53 | -106.49 | 6168 |
| 269 22:29:47 | -132.84 | 6169 |

| | | |
|--------------|---------|-------|
| 270 01:27:22 | -40.14 | 31405 |
| 270 03:12:17 | -66.50 | 31406 |
| 270 04:57:12 | -92.85 | 31407 |
| 270 06:42:06 | -119.21 | 31408 |
| 270 08:27:01 | -145.56 | 31409 |
| 270 10:11:56 | -171.91 | 31410 |
| 270 11:56:51 | 161.73 | 31411 |
| 270 13:41:46 | 135.38 | 31412 |
| 270 15:26:40 | 109.02 | 31413 |
| 270 17:11:35 | 82.67 | 31414 |
| 270 18:56:30 | 56.32 | 31415 |
| 270 20:41:25 | 29.96 | 31416 |
| 270 22:26:20 | 3.61 | 31417 |

| | | |
|--------------|---------|------|
| 270 00:14:40 | -139.19 | 6170 |
| 270 01:59:34 | 174.46 | 6171 |
| 270 03:44:28 | 148.11 | 6172 |
| 270 05:29:22 | 121.76 | 6173 |
| 270 07:14:15 | 95.41 | 6174 |
| 270 08:59:09 | 69.06 | 6175 |
| 270 10:44:03 | 42.71 | 6176 |
| 270 12:28:57 | 16.36 | 6177 |
| 270 14:13:51 | -9.99 | 6178 |
| 270 15:58:44 | -36.34 | 6179 |
| 270 17:43:38 | -62.69 | 6180 |
| 270 19:28:32 | -89.04 | 6181 |
| 270 21:13:26 | -115.39 | 6182 |
| 270 22:58:19 | -141.74 | 6183 |

| | | |
|--------------|---------|-------|
| 271 00:11:14 | -22.74 | 31418 |
| 271 01:56:09 | -49.10 | 31419 |
| 271 03:41:04 | -75.45 | 31420 |
| 271 05:25:59 | -101.80 | 31421 |
| 271 07:10:54 | -128.16 | 31422 |
| 271 08:55:49 | -154.51 | 31423 |
| 271 10:40:43 | 179.13 | 31424 |
| 271 12:25:38 | 152.78 | 31425 |
| 271 14:10:33 | 126.43 | 31426 |
| 271 15:55:28 | 100.07 | 31427 |
| 271 17:40:23 | 73.72 | 31428 |
| 271 19:25:17 | 47.36 | 31429 |
| 271 21:10:12 | 21.01 | 31430 |
| 271 22:55:07 | -5.34 | 31431 |

| | | |
|--------------|---------|------|
| 271 00:43:13 | -168.09 | 6184 |
| 271 02:28:07 | 165.57 | 6185 |
| 271 04:13:01 | 139.22 | 6186 |
| 271 05:57:54 | 112.87 | 6187 |
| 271 07:42:48 | 86.52 | 6188 |
| 271 09:27:42 | 60.17 | 6189 |
| 271 11:12:36 | 33.82 | 6190 |
| 271 12:57:29 | 7.47 | 6191 |
| 271 14:42:23 | -18.88 | 6192 |
| 271 16:27:17 | -45.23 | 6193 |
| 271 18:12:11 | -71.58 | 6194 |
| 271 19:57:04 | -97.93 | 6195 |
| 271 21:41:58 | -124.28 | 6196 |
| 271 23:26:52 | -150.63 | 6197 |

SATELLITE S2
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

268 00:21:14 -98.93 29808
 268 02:03:15 -124.44 29809
 268 03:45:15 -149.93 29810
 268 05:27:16 -175.43 29811
 268 07:09:16 159.07 29812
 268 08:51:17 133.57 29813
 268 10:33:17 108.07 29814
 268 12:15:18 82.57 29815
 268 13:57:18 57.07 29816
 268 15:39:19 31.57 29817
 268 17:21:19 6.08 29818
 268 19:03:20 -19.43 29819
 268 20:45:20 -44.92 29820
 268 22:27:21 -70.43 29821

SATELLITE S3
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

268 00:40:03 -79.73 20880
 268 02:21:16 -105.05 20881
 268 04:02:30 -130.37 20882
 268 05:43:43 -155.67 20883
 268 07:24:56 179.03 20884
 268 09:06:09 153.72 20885
 268 10:47:22 128.42 20886
 268 12:28:36 103.11 20887
 268 14:09:49 77.80 20888
 268 15:51:02 52.50 20889
 268 17:32:15 27.20 20890
 268 19:13:28 1.89 20891
 268 20:54:41 -23.41 20892
 268 22:35:55 -48.73 20893

SATELLITE S4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

268 01:23:04 -168.24 10305
 268 03:05:08 166.25 10306
 268 04:47:13 140.73 10307
 268 06:29:18 115.20 10308
 268 08:11:23 89.68 10309
 268 09:53:28 64.16 10310
 268 11:35:32 38.65 10311
 268 13:17:37 13.13 10312
 268 14:59:42 -12.39 10313
 268 16:41:47 -37.91 10314
 268 18:23:51 -63.42 10315
 268 20:05:56 -88.94 10316
 268 21:48:01 -114.47 10317
 268 23:30:06 -139.99 10318

269 00:09:21 -95.92 29822
 269 01:51:22 -121.43 29823
 269 03:33:22 -146.92 29824
 269 05:15:23 -172.43 29825
 269 06:57:23 162.08 29826
 269 08:39:24 136.57 29827
 269 10:21:24 111.08 29828
 269 12:03:25 85.57 29829
 269 13:45:25 60.08 29830
 269 15:27:26 34.57 29831
 269 17:09:26 9.08 29832
 269 18:51:27 -16.42 29833
 269 20:33:27 -41.92 29834
 269 22:15:28 -67.42 29835
 269 23:57:28 -92.92 29836

269 00:17:08 -74.03 20894
 269 01:58:21 -99.33 20895
 269 03:39:34 -124.63 20896
 269 05:20:47 -149.94 20897
 269 07:02:01 -175.25 20898
 269 08:43:14 159.44 20899
 269 10:24:27 134.14 20900
 269 12:05:40 108.84 20901
 269 13:46:53 83.53 20902
 269 15:28:07 58.22 20903
 269 17:09:20 32.91 20904
 269 18:50:33 7.61 20905
 269 20:31:46 -17.69 20906
 269 22:12:59 -42.99 20907
 269 23:54:12 -68.30 20908

269 01:12:11 -165.51 10319
 269 02:54:15 168.98 10320
 269 04:36:20 143.46 10321
 269 06:18:25 117.94 10322
 269 08:00:30 92.42 10323
 269 09:42:34 66.91 10324
 269 11:24:39 41.38 10325
 269 13:06:44 15.86 10326
 269 14:48:49 -9.66 10327
 269 16:30:54 -35.18 10328
 269 18:12:58 -60.69 10329
 269 19:55:03 -86.21 10330
 269 21:37:08 -111.73 10331
 269 23:19:13 -137.26 10332

270 01:39:29 -118.42 29837
 270 03:21:29 -143.91 29838
 270 05:03:30 -169.42 29839
 270 06:45:30 165.09 29840
 270 08:27:31 139.58 29841
 270 10:09:31 114.09 29842
 270 11:51:32 88.58 29843
 270 13:33:32 63.09 29844
 270 15:15:32 37.60 29845
 270 16:57:33 12.09 29846
 270 18:39:33 -13.40 29847
 270 20:21:34 -38.91 29848
 270 22:03:34 -64.40 29849
 270 23:45:35 -89.91 29850

270 01:35:26 -93.61 20909
 270 03:16:39 -118.92 20910
 270 04:57:52 -144.22 20911
 270 06:39:03 -169.52 20912
 270 08:20:18 165.17 20913
 270 10:01:32 139.86 20914
 270 11:42:45 114.56 20915
 270 13:23:58 89.25 20916
 270 15:05:11 63.95 20917
 270 16:46:24 38.65 20918
 270 18:27:37 13.34 20919
 270 20:08:51 -11.97 20920
 270 21:50:04 -37.28 20921
 270 23:31:17 -62.58 20922

270 01:01:17 -162.76 10333
 270 02:43:22 171.71 10334
 270 04:25:27 146.19 10335
 270 06:07:32 120.67 10336
 270 07:49:36 95.16 10337
 270 09:31:41 69.64 10338
 270 11:13:46 44.12 10339
 270 12:55:51 18.60 10340
 270 14:37:56 -6.93 10341
 270 16:20:00 -32.44 10342
 270 18:02:05 -57.96 10343
 270 19:44:10 -83.48 10344
 270 21:26:15 -109.00 10345
 270 23:08:19 -134.51 10346

271 01:27:35 -115.40 29851
 271 03:09:36 -140.91 29852
 271 04:51:36 -166.40 29853
 271 06:33:37 168.09 29854
 271 08:15:37 142.60 29855
 271 09:57:38 117.09 29856
 271 11:39:38 91.60 29857
 271 13:21:39 66.09 29858
 271 15:03:39 40.60 29859
 271 16:45:40 15.10 29860
 271 18:27:40 -10.40 29861
 271 20:09:41 -35.90 29862
 271 21:51:41 -61.40 29863
 271 23:33:42 -86.90 29864

271 01:12:30 -87.88 20923
 271 02:53:43 -113.19 20924
 271 04:34:57 -138.50 20925
 271 06:16:10 -163.80 20926
 271 07:57:23 170.89 20927
 271 09:38:36 145.59 20928
 271 11:19:49 120.29 20929
 271 13:01:02 94.98 20930
 271 14:42:16 69.67 20931
 271 16:23:29 44.36 20932
 271 18:04:42 19.06 20933
 271 19:45:55 -6.24 20934
 271 21:27:08 -31.54 20935
 271 23:08:22 -56.86 20936

271 00:50:24 -160.03 10347
 271 02:32:29 174.45 10348
 271 04:14:34 148.92 10349
 271 05:56:39 123.40 10350
 271 07:38:43 97.89 10351
 271 09:20:48 72.37 10352
 271 11:02:53 46.85 10353
 271 12:44:58 21.33 10354
 271 14:27:02 -4.18 10355
 271 16:09:07 -29.70 10356
 271 17:51:12 -55.22 10357
 271 19:33:17 -80.75 10358
 271 21:15:22 -106.27 10359
 271 22:57:26 -131.78 10360

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 272 00:40:02 | -31.70 | 31432 |
| 272 02:24:57 | -58.05 | 31433 |
| 272 04:09:52 | -84.40 | 31434 |
| 272 05:54:46 | -110.76 | 31435 |
| 272 07:39:41 | -137.11 | 31436 |
| 272 09:24:36 | -163.47 | 31437 |
| 272 11:09:31 | 170.18 | 31438 |
| 272 12:54:26 | 143.83 | 31439 |
| 272 14:39:20 | 117.47 | 31440 |
| 272 16:24:15 | 91.12 | 31441 |
| 272 18:09:10 | 64.76 | 31442 |
| 272 19:54:05 | 38.41 | 31443 |
| 272 21:39:00 | 12.06 | 31444 |
| 272 23:23:54 | -14.30 | 31445 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 272 01:11:46 | -176.98 | 6198 |
| 272 02:56:40 | 156.67 | 6199 |
| 272 04:41:33 | 130.32 | 6200 |
| 272 06:26:27 | 103.97 | 6201 |
| 272 08:11:21 | 77.62 | 6202 |
| 272 09:56:15 | 51.28 | 6203 |
| 272 11:41:08 | 24.92 | 6204 |
| 272 13:26:02 | -1.42 | 6205 |
| 272 15:10:56 | -27.77 | 6206 |
| 272 16:55:50 | -54.12 | 6207 |
| 272 18:40:43 | -80.47 | 6208 |
| 272 20:25:37 | -106.82 | 6209 |
| 272 22:10:31 | -133.17 | 6210 |
| 272 23:55:25 | -159.52 | 6211 |

| | | |
|--------------|---------|-------|
| 273 01:08:49 | -40.65 | 31446 |
| 273 02:53:44 | -67.01 | 31447 |
| 273 04:38:39 | -93.36 | 31448 |
| 273 06:23:34 | -119.71 | 31449 |
| 273 08:08:29 | -146.07 | 31450 |
| 273 09:53:23 | -172.42 | 31451 |
| 273 11:38:18 | 161.22 | 31452 |
| 273 13:23:13 | 134.87 | 31453 |
| 273 15:08:08 | 108.52 | 31454 |
| 273 16:53:03 | 82.16 | 31455 |
| 273 18:37:57 | 55.81 | 31456 |
| 273 20:22:52 | 29.45 | 31457 |
| 273 22:07:47 | 3.10 | 31458 |
| 273 23:52:42 | -23.25 | 31459 |

| | | |
|--------------|---------|------|
| 273 01:40:18 | 174.13 | 6212 |
| 273 03:25:12 | 147.78 | 6213 |
| 273 05:10:06 | 121.43 | 6214 |
| 273 06:55:00 | 95.08 | 6215 |
| 273 08:39:53 | 68.73 | 6216 |
| 273 10:24:47 | 42.38 | 6217 |
| 273 12:09:41 | 16.03 | 6218 |
| 273 13:54:35 | -10.32 | 6219 |
| 273 15:39:28 | -36.67 | 6220 |
| 273 17:24:22 | -63.02 | 6221 |
| 273 19:09:16 | -89.37 | 6222 |
| 273 20:54:10 | -115.71 | 6223 |
| 273 22:39:04 | -142.06 | 6224 |

| | | |
|--------------|---------|-------|
| 274 01:37:37 | -49.61 | 31460 |
| 274 03:22:31 | -75.96 | 31461 |
| 274 05:07:26 | -102.32 | 31462 |
| 274 06:52:21 | -128.67 | 31463 |
| 274 08:37:16 | -155.02 | 31464 |
| 274 10:22:11 | 178.62 | 31465 |
| 274 12:07:06 | 152.27 | 31466 |
| 274 13:52:00 | 125.92 | 31467 |
| 274 15:36:55 | 99.56 | 31468 |
| 274 17:21:50 | 73.21 | 31469 |
| 274 19:06:45 | 46.86 | 31470 |
| 274 20:51:40 | 20.50 | 31471 |
| 274 22:36:34 | -5.85 | 31472 |

| | | |
|--------------|---------|------|
| 274 00:23:57 | -168.41 | 6225 |
| 274 02:08:51 | 165.24 | 6226 |
| 274 03:53:45 | 138.89 | 6227 |
| 274 05:38:39 | 112.54 | 6228 |
| 274 07:23:32 | 86.19 | 6229 |
| 274 09:08:26 | 59.84 | 6230 |
| 274 10:53:20 | 33.49 | 6231 |
| 274 12:38:14 | 7.14 | 6232 |
| 274 14:23:07 | -19.21 | 6233 |
| 274 16:08:01 | -45.56 | 6234 |
| 274 17:52:55 | -71.91 | 6235 |
| 274 19:37:49 | -98.26 | 6236 |
| 274 21:22:42 | -124.61 | 6237 |
| 274 23:07:36 | -150.96 | 6238 |

| | | |
|--------------|---------|-------|
| 275 00:21:29 | -32.21 | 31473 |
| 275 02:06:24 | -58.56 | 31474 |
| 275 03:51:19 | -84.91 | 31475 |
| 275 05:36:14 | -111.27 | 31476 |
| 275 07:21:08 | -137.62 | 31477 |
| 275 09:06:03 | -163.98 | 31478 |
| 275 10:50:58 | 169.67 | 31479 |
| 275 12:35:53 | 143.32 | 31480 |
| 275 14:20:48 | 116.96 | 31481 |
| 275 16:05:43 | 90.61 | 31482 |
| 275 17:50:37 | 64.25 | 31483 |
| 275 19:35:32 | 37.90 | 31484 |
| 275 21:20:27 | 11.55 | 31485 |
| 275 23:05:22 | -14.81 | 31486 |

| | | |
|--------------|---------|------|
| 275 00:52:30 | -177.31 | 6239 |
| 275 02:37:24 | 156.35 | 6240 |
| 275 04:22:17 | 129.99 | 6241 |
| 275 06:07:11 | 103.64 | 6242 |
| 275 07:52:05 | 77.30 | 6243 |
| 275 09:36:59 | 50.95 | 6244 |
| 275 11:21:52 | 24.60 | 6245 |
| 275 13:06:46 | -1.75 | 6246 |
| 275 14:51:40 | -28.10 | 6247 |
| 275 16:36:34 | -54.45 | 6248 |
| 275 18:21:27 | -80.80 | 6249 |
| 275 20:06:21 | -107.15 | 6250 |
| 275 21:51:15 | -133.50 | 6251 |
| 275 23:36:09 | -159.85 | 6252 |

SATELLITE S2

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 272 01:15:42 | -112.40 | 29865 |
| 272 02:57:43 | -137.90 | 29866 |
| 272 04:39:43 | -163.39 | 29867 |
| 272 06:21:44 | 171.10 | 29868 |
| 272 08:03:44 | 145.61 | 29869 |
| 272 09:45:45 | 120.10 | 29870 |
| 272 11:27:45 | 94.61 | 29871 |
| 272 13:09:46 | 69.10 | 29872 |
| 272 14:51:46 | 43.61 | 29873 |
| 272 16:33:47 | 18.10 | 29874 |
| 272 18:15:47 | -7.39 | 29875 |
| 272 19:57:48 | -32.90 | 29876 |
| 272 21:39:48 | -58.39 | 29877 |
| 272 23:21:49 | -83.90 | 29878 |

SATELLITE S3

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 272 00:49:35 | -82.16 | 20937 |
| 272 02:30:48 | -107.47 | 20938 |
| 272 04:12:01 | -132.77 | 20939 |
| 272 05:53:14 | -158.07 | 20940 |
| 272 07:34:28 | 176.61 | 20941 |
| 272 09:15:41 | 151.31 | 20942 |
| 272 10:56:54 | 126.00 | 20943 |
| 272 12:38:07 | 100.70 | 20944 |
| 272 14:19:20 | 75.40 | 20945 |
| 272 16:00:33 | 50.10 | 20946 |
| 272 17:41:47 | 24.78 | 20947 |
| 272 19:23:00 | -52 | 20948 |
| 272 21:04:13 | -25.83 | 20949 |
| 272 22:45:26 | -51.13 | 20950 |

SATELLITE S4

Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 272 00:39:31 | -157.30 | 10361 |
| 272 02:21:36 | 177.18 | 10362 |
| 272 04:03:41 | 151.66 | 10363 |
| 272 05:45:45 | 126.15 | 10364 |
| 272 07:27:50 | 100.63 | 10365 |
| 272 09:09:55 | 75.10 | 10366 |
| 272 10:52:00 | 49.58 | 10367 |
| 272 12:34:04 | 24.07 | 10368 |
| 272 14:16:09 | -1.45 | 10369 |
| 272 15:58:14 | -26.97 | 10370 |
| 272 17:40:19 | -52.49 | 10371 |
| 272 19:22:24 | -78.01 | 10372 |
| 272 21:04:28 | -103.52 | 10373 |
| 272 22:46:33 | -129.04 | 10374 |

| | | |
|--------------|---------|-------|
| 273 01:03:49 | -109.39 | 29879 |
| 273 02:45:50 | -134.90 | 29880 |
| 273 04:27:50 | -160.39 | 29881 |
| 273 06:09:51 | 174.11 | 29882 |
| 273 07:51:51 | 148.61 | 29883 |
| 273 09:33:52 | 123.11 | 29884 |
| 273 11:15:52 | 97.61 | 29885 |
| 273 12:57:53 | 72.11 | 29886 |
| 273 14:39:53 | 46.61 | 29887 |
| 273 16:21:54 | 21.11 | 29888 |
| 273 18:03:54 | -4.38 | 29889 |
| 273 19:45:55 | -29.89 | 29890 |
| 273 21:27:55 | -55.38 | 29891 |
| 273 23:09:56 | -80.89 | 29892 |

| | | |
|--------------|---------|-------|
| 273 00:26:39 | -76.43 | 20951 |
| 273 02:07:53 | -101.75 | 20952 |
| 273 03:49:06 | -127.05 | 20953 |
| 273 05:30:19 | -152.35 | 20954 |
| 273 07:11:32 | -177.66 | 20955 |
| 273 08:52:45 | 157.04 | 20956 |
| 273 10:33:58 | 131.74 | 20957 |
| 273 12:15:12 | 106.42 | 20958 |
| 273 13:56:25 | 81.12 | 20959 |
| 273 15:37:38 | 55.81 | 20960 |
| 273 17:18:51 | 30.51 | 20961 |
| 273 19:00:04 | 5.21 | 20962 |
| 273 20:41:18 | -20.11 | 20963 |
| 273 22:22:31 | -45.41 | 20964 |

| | | |
|--------------|---------|-------|
| 273 00:28:38 | -154.57 | 10375 |
| 273 02:10:43 | 179.91 | 10376 |
| 273 03:52:47 | 154.40 | 10377 |
| 273 05:34:52 | 128.88 | 10378 |
| 273 07:16:57 | 103.36 | 10379 |
| 273 08:59:02 | 77.84 | 10380 |
| 273 10:41:07 | 52.32 | 10381 |
| 273 12:23:11 | 26.81 | 10382 |
| 273 14:05:16 | 1.29 | 10383 |
| 273 15:47:21 | -24.24 | 10384 |
| 273 17:29:26 | -49.76 | 10385 |
| 273 19:11:30 | -75.27 | 10386 |
| 273 20:53:35 | -100.79 | 10387 |
| 273 22:35:40 | -126.31 | 10388 |

| | | |
|--------------|---------|-------|
| 274 00:51:56 | -106.38 | 29893 |
| 274 02:33:57 | -131.89 | 29894 |
| 274 04:15:57 | -157.38 | 29895 |
| 274 05:57:58 | 177.11 | 29896 |
| 274 07:39:58 | 151.62 | 29897 |
| 274 09:21:59 | 126.11 | 29898 |
| 274 11:03:59 | 100.62 | 29899 |
| 274 12:46:00 | 75.11 | 29900 |
| 274 14:28:00 | 49.62 | 29901 |
| 274 16:10:01 | 24.11 | 29902 |
| 274 17:52:01 | -1.38 | 29903 |
| 274 19:34:02 | -26.88 | 29904 |
| 274 21:16:02 | -52.38 | 29905 |
| 274 22:58:03 | -77.88 | 29906 |

| | | |
|--------------|---------|-------|
| 274 00:03:44 | -70.71 | 20965 |
| 274 01:44:57 | -96.02 | 20966 |
| 274 03:26:10 | -121.32 | 20967 |
| 274 05:07:24 | -146.64 | 20968 |
| 274 06:48:37 | -171.94 | 20969 |
| 274 08:29:50 | 162.76 | 20970 |
| 274 10:11:03 | 137.45 | 20971 |
| 274 11:52:16 | 112.15 | 20972 |
| 274 13:33:29 | 86.85 | 20973 |
| 274 15:14:43 | 61.53 | 20974 |
| 274 16:55:56 | 36.23 | 20975 |
| 274 18:37:09 | 10.93 | 20976 |
| 274 20:18:22 | -14.38 | 20977 |
| 274 21:59:35 | -39.68 | 20978 |
| 274 23:40:49 | -65.00 | 20979 |

| | | |
|--------------|---------|-------|
| 274 00:17:45 | -151.83 | 10389 |
| 274 01:59:50 | -177.36 | 10390 |
| 274 03:41:54 | 157.14 | 10391 |
| 274 05:23:59 | 131.61 | 10392 |
| 274 07:06:04 | 106.09 | 10393 |
| 274 08:48:09 | 80.57 | 10394 |
| 274 10:30:13 | 55.06 | 10395 |
| 274 12:12:18 | 29.54 | 10396 |
| 274 13:54:23 | 4.02 | 10397 |
| 274 15:36:28 | -21.50 | 10398 |
| 274 17:18:32 | -47.01 | 10399 |
| 274 19:00:37 | -72.53 | 10400 |
| 274 20:42:42 | -98.06 | 10401 |
| 274 22:24:47 | -123.58 | 10402 |

| | | |
|--------------|---------|-------|
| 275 00:40:03 | -103.38 | 29907 |
| 275 02:22:04 | -128.88 | 29908 |
| 275 04:04:04 | -154.38 | 29909 |
| 275 05:46:05 | -179.88 | 29910 |
| 275 07:28:05 | 154.63 | 29911 |
| 275 09:10:06 | 129.12 | 29912 |
| 275 10:52:06 | 103.63 | 29913 |
| 275 12:34:07 | 78.12 | 29914 |
| 275 14:16:07 | 52.63 | 29915 |
| 275 15:58:08 | 27.12 | 29916 |
| 275 17:40:08 | 1.63 | 29917 |
| 275 19:22:09 | -23.88 | 29918 |
| 275 21:04:09 | -49.37 | 29919 |
| 275 22:46:10 | -74.88 | 29920 |

| | | |
|--------------|---------|-------|
| 275 01:22:02 | -90.30 | 20980 |
| 275 03:03:15 | -115.60 | 20981 |
| 275 04:44:28 | -140.90 | 20982 |
| 275 06:25:41 | -166.21 | 20983 |
| 275 08:06:54 | 168.49 | 20984 |
| 275 09:48:08 | 143.17 | 20985 |
| 275 11:29:21 | 117.87 | 20986 |
| 275 13:10:34 | 92.57 | 20987 |
| 275 14:51:47 | 67.26 | 20988 |
| 275 16:33:00 | 41.96 | 20989 |
| 275 18:14:14 | 16.64 | 20990 |
| 275 19:55:27 | -8.66 | 20991 |
| 275 21:36:40 | -33.96 | 20992 |
| 275 23:17:53 | -59.26 | 20993 |

| | | |
|--------------|---------|-------|
| 275 00:06:52 | -149.10 | 10403 |
| 275 01:48:56 | -174.61 | 10404 |
| 275 03:31:01 | 159.87 | 10405 |
| 275 05:13:06 | 134.35 | 10406 |
| 275 06:55:11 | 108.83 | 10407 |
| 275 08:37:15 | 83.32 | 10408 |
| 275 10:19:20 | 57.79 | 10409 |
| 275 12:01:25 | 32.27 | 10410 |
| 275 13:43:30 | 6.75 | 10411 |
| 275 15:25:35 | -18.77 | 10412 |
| 275 17:07:39 | -44.28 | 10413 |
| 275 18:49:44 | -69.80 | 10414 |
| 275 20:31:49 | -95.32 | 10415 |
| 275 22:13:54 | -120.85 | 10416 |
| 275 23:55:58 | -146.35 | 10417 |

SATELLITE C3
Ascending Node Predictions
Predicting for 186 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 276 00:50:17 | -41.16 | 31487 |
| 276 02:35:11 | -67.52 | 31488 |
| 276 04:20:06 | -93.87 | 31489 |
| 276 06:05:01 | -120.22 | 31490 |
| 276 07:49:56 | -146.58 | 31491 |
| 276 09:34:51 | -172.93 | 31492 |
| 276 11:19:45 | 160.71 | 31493 |
| 276 13:04:40 | 134.36 | 31494 |
| 276 14:49:35 | 108.01 | 31495 |
| 276 16:34:30 | 81.65 | 31496 |
| 276 18:19:25 | 55.30 | 31497 |
| 276 20:04:20 | 28.95 | 31498 |
| 276 21:49:14 | 2.59 | 31499 |
| 276 23:34:09 | -23.76 | 31500 |

| | | |
|--------------|---------|-------|
| 277 01:19:04 | -50.12 | 31501 |
| 277 03:03:59 | -76.47 | 31502 |
| 277 04:48:54 | -102.82 | 31503 |
| 277 06:33:48 | -129.18 | 31504 |
| 277 08:18:43 | -155.53 | 31505 |
| 277 10:03:38 | -178.11 | 31506 |
| 277 11:48:33 | -151.76 | 31507 |
| 277 13:33:28 | 125.41 | 31508 |
| 277 15:18:22 | 99.05 | 31509 |
| 277 17:03:17 | 72.70 | 31510 |
| 277 18:48:12 | 46.35 | 31511 |
| 277 20:33:07 | 19.99 | 31512 |
| 277 22:18:02 | -6.36 | 31513 |

SATELLITE C4
Ascending Node Predictions
Predicting for 184 days
TIME (GMT) E LONG ORBIT
day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 276 01:21:03 | 173.80 | 6253 |
| 276 03:05:56 | 147.45 | 6254 |
| 276 04:50:50 | 121.10 | 6255 |
| 276 06:35:44 | 94.75 | 6256 |
| 276 08:20:38 | 68.40 | 6257 |
| 276 10:05:31 | 42.05 | 6258 |
| 276 11:50:25 | 15.70 | 6259 |
| 276 13:35:19 | -10.64 | 6260 |
| 276 15:20:13 | -36.99 | 6261 |
| 276 17:05:06 | -63.34 | 6262 |
| 276 18:50:00 | -89.69 | 6263 |
| 276 20:34:54 | -116.04 | 6264 |
| 276 22:19:48 | -142.39 | 6265 |

| | | |
|--------------|---------|------|
| 277 00:04:41 | -168.74 | 6266 |
| 277 01:49:35 | 164.91 | 6267 |
| 277 03:34:29 | 138.56 | 6268 |
| 277 05:19:23 | 112.21 | 6269 |
| 277 07:04:16 | 85.86 | 6270 |
| 277 08:49:10 | 59.51 | 6271 |
| 277 10:34:04 | 33.16 | 6272 |
| 277 12:18:58 | 6.81 | 6273 |
| 277 14:03:51 | -19.54 | 6274 |
| 277 15:48:45 | -45.89 | 6275 |
| 277 17:33:39 | -72.24 | 6276 |
| 277 19:18:33 | -98.58 | 6277 |
| 277 21:03:26 | -124.94 | 6278 |
| 277 22:48:20 | -151.28 | 6279 |

| | | |
|--------------|---------|-------|
| 278 00:02:57 | -32.71 | 31514 |
| 278 01:47:51 | -59.07 | 31515 |
| 278 03:32:46 | -85.42 | 31516 |
| 278 05:17:41 | -111.78 | 31517 |
| 278 07:02:36 | -138.13 | 31518 |
| 278 08:47:31 | -164.48 | 31519 |
| 278 10:32:25 | 169.16 | 31520 |
| 278 12:17:20 | 142.81 | 31521 |
| 278 14:02:15 | 116.45 | 31522 |
| 278 15:47:10 | 90.10 | 31523 |
| 278 17:32:05 | 63.75 | 31524 |
| 278 19:16:59 | 37.39 | 31525 |
| 278 21:01:54 | 11.04 | 31526 |
| 278 22:46:49 | -15.32 | 31527 |

| | | |
|--------------|---------|------|
| 278 00:33:14 | -177.63 | 6280 |
| 278 02:18:08 | 156.02 | 6281 |
| 278 04:03:01 | 129.67 | 6282 |
| 278 05:47:55 | 103.32 | 6283 |
| 278 07:32:49 | 76.97 | 6284 |
| 278 09:17:43 | 50.62 | 6285 |
| 278 11:02:36 | 24.27 | 6286 |
| 278 12:47:30 | -2.08 | 6287 |
| 278 14:32:24 | -28.43 | 6288 |
| 278 16:17:18 | -54.78 | 6289 |
| 278 18:02:11 | -81.13 | 6290 |
| 278 19:47:05 | -107.48 | 6291 |
| 278 21:31:59 | -133.83 | 6292 |
| 278 23:16:53 | -160.18 | 6293 |

| | | |
|--------------|---------|-------|
| 279 00:31:44 | -41.67 | 31528 |
| 279 02:16:39 | -68.02 | 31529 |
| 279 04:01:34 | -94.38 | 31530 |
| 279 05:46:28 | -120.73 | 31531 |
| 279 07:31:23 | -147.09 | 31532 |
| 279 09:16:18 | -173.44 | 31533 |
| 279 11:01:13 | 160.21 | 31534 |
| 279 12:46:08 | 133.85 | 31535 |
| 279 14:31:02 | 107.50 | 31536 |
| 279 16:15:57 | 81.14 | 31537 |
| 279 18:00:52 | 54.79 | 31538 |
| 279 19:45:47 | 28.44 | 31539 |
| 279 21:30:42 | 2.08 | 31540 |
| 279 23:15:36 | -24.27 | 31541 |

| | | |
|--------------|---------|------|
| 279 01:01:46 | 173.47 | 6294 |
| 279 02:46:40 | 147.12 | 6295 |
| 279 04:31:34 | 120.78 | 6296 |
| 279 06:16:28 | 94.43 | 6297 |
| 279 08:01:21 | 68.07 | 6298 |
| 279 09:46:15 | 41.73 | 6299 |
| 279 11:31:09 | 15.38 | 6300 |
| 279 13:16:03 | -10.97 | 6301 |
| 279 15:00:56 | -37.32 | 6302 |
| 279 16:45:50 | -63.67 | 6303 |
| 279 18:30:44 | -90.02 | 6304 |
| 279 20:15:38 | -116.37 | 6305 |
| 279 22:00:31 | -142.72 | 6306 |
| 279 23:45:25 | -169.07 | 6307 |

SATELLITE S2
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

276 00:28:10 -100.37 29921
 276 02:10:11 -125.88 29922
 276 03:52:11 -151.37 29923
 276 05:34:12 -176.88 29924
 276 07:16:12 157.63 29925
 276 08:58:13 132.13 29926
 276 10:40:13 106.63 29927
 276 12:22:14 81.13 29928
 276 14:04:14 55.63 29929
 276 15:46:15 30.13 29930
 276 17:28:15 4.63 29931
 276 19:10:16 -20.87 29932
 276 20:52:16 -46.36 29933
 276 22:34:17 -71.87 29934

SATELLITE S3
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

276 00:59:06 -84.57 20994
 276 02:40:20 -109.88 20995
 276 04:21:33 -135.19 20996
 276 06:02:46 -160.49 20997
 276 07:43:59 174.21 20998
 276 09:25:12 148.90 20999
 276 11:06:25 123.60 21000
 276 12:47:39 98.29 21001
 276 14:28:52 72.98 21002
 276 16:10:05 47.68 21003
 276 17:51:18 22.38 21004
 276 19:32:31 -2.93 21005
 276 21:13:45 -28.24 21006
 276 22:54:58 -53.55 21007

SATELLITE S4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

276 01:38:03 -171.88 10418
 276 03:20:08 162.60 10419
 276 05:02:13 137.08 10420
 276 06:44:18 111.56 10421
 276 08:26:22 86.05 10422
 276 10:08:27 60.53 10423
 276 11:50:32 35.01 10424
 276 13:32:37 9.48 10425
 276 15:14:41 -16.03 10426
 276 16:56:46 -41.55 10427
 276 18:38:51 -67.07 10428
 276 20:20:56 -92.59 10429
 276 22:03:01 -118.11 10430
 276 23:45:05 -143.62 10431

277 00:16:17 -97.36 29935
 277 01:58:18 -122.87 29936
 277 03:40:18 -148.36 29937
 277 05:22:19 -173.87 29938
 277 07:04:19 160.64 29939
 277 08:46:20 135.13 29940
 277 10:28:20 109.64 29941
 277 12:10:21 84.13 29942
 277 13:52:21 58.64 29943
 277 15:34:22 33.13 29944
 277 17:16:22 7.64 29945
 277 18:58:23 -17.87 29946
 277 20:40:23 -43.36 29947
 277 22:22:24 -68.86 29948

277 00:36:11 -78.85 21008
 277 02:17:24 -104.15 21009
 277 03:58:37 -129.45 21010
 277 05:39:51 -154.77 21011
 277 07:21:04 179.93 21012
 277 09:02:17 154.62 21013
 277 10:43:30 129.32 21014
 277 12:24:43 104.02 21015
 277 14:05:56 78.71 21016
 277 15:47:10 53.40 21017
 277 17:28:23 28.10 21018
 277 19:09:36 2.79 21019
 277 20:50:49 -22.51 21020
 277 22:32:02 -47.81 21021

277 01:27:10 -169.14 10432
 277 03:09:15 165.33 10433
 277 04:51:20 139.81 10434
 277 06:33:24 114.30 10435
 277 08:15:29 88.78 10436
 277 09:57:34 63.26 10437
 277 11:39:39 37.74 10438
 277 13:21:43 12.23 10439
 277 15:03:48 -13.29 10440
 277 16:45:53 -38.81 10441
 277 18:27:58 -64.34 10442
 277 20:10:03 -89.86 10443
 277 21:52:07 -115.37 10444
 277 23:34:12 -140.89 10445

278 00:04:24 -94.36 29949
 278 01:46:25 -119.86 29950
 278 03:28:25 -145.36 29951
 278 05:10:26 -170.86 29952
 278 06:52:26 163.64 29953
 278 08:34:27 138.14 29954
 278 10:16:27 112.65 29955
 278 11:58:27 87.15 29956
 278 13:40:28 61.65 29957
 278 15:22:28 36.15 29958
 278 17:04:29 10.65 29959
 278 18:46:29 -14.85 29960
 278 20:28:30 -40.35 29961
 278 22:10:30 -65.84 29962
 278 23:52:31 -91.35 29963

278 00:13:16 -73.13 21022
 278 01:54:29 -98.43 21023
 278 03:35:42 -123.74 21024
 278 05:16:55 -149.04 21025
 278 06:58:08 -174.34 21026
 278 08:39:21 160.35 21027
 278 10:20:35 135.04 21028
 278 12:01:48 109.74 21029
 278 13:43:01 84.43 21030
 278 15:24:14 59.13 21031
 278 17:05:27 33.83 21032
 278 18:46:41 8.51 21033
 278 20:27:54 -16.79 21034
 278 22:09:07 -42.10 21035
 278 23:50:20 -67.40 21036

278 01:16:17 -166.41 10446
 278 02:58:22 168.07 10447
 278 04:40:26 142.56 10448
 278 06:22:31 117.04 10449
 278 08:04:36 91.51 10450
 278 09:46:41 65.99 10451
 278 11:28:46 40.47 10452
 278 13:10:50 14.96 10453
 278 14:52:55 -10.56 10454
 278 16:35:00 -36.08 10455
 278 18:17:05 -61.60 10456
 278 19:59:09 -87.11 10457
 278 21:41:14 -112.63 10458
 278 23:23:19 -138.16 10459

279 01:34:31 -116.84 29964
 279 03:16:32 -142.35 29965
 279 04:58:32 -167.84 29966
 279 06:40:33 166.63 29967
 279 08:22:33 141.16 29968
 279 10:04:34 115.65 29969
 279 11:46:34 90.16 29970
 279 13:28:35 64.65 29971
 279 15:10:35 39.16 29972
 279 16:52:36 13.65 29973
 279 18:34:36 -11.84 29974
 279 20:16:37 -37.35 29975
 279 21:58:37 -62.84 29976
 279 23:40:38 -88.34 29977

279 01:31:33 -92.70 21037
 279 03:12:47 -118.02 21038
 279 04:54:00 -143.32 21039
 279 06:35:13 -168.62 21040
 279 08:16:26 166.07 21041
 279 09:57:39 140.77 21042
 279 11:38:52 115.47 21043
 279 13:20:06 90.15 21044
 279 15:01:19 64.85 21045
 279 16:42:32 39.55 21046
 279 18:23:45 14.24 21047
 279 20:04:58 -11.06 21048
 279 21:46:12 -36.38 21049
 279 23:27:25 -61.68 21050

279 01:05:24 -163.68 10460
 279 02:47:29 170.80 10461
 279 04:29:33 145.29 10462
 279 06:11:38 119.77 10463
 279 07:53:43 94.25 10464
 279 09:35:48 68.73 10465
 279 11:17:52 43.22 10466
 279 12:59:57 17.70 10467
 279 14:42:02 -7.83 10468
 279 16:24:07 -33.35 10469
 279 18:06:12 -58.87 10470
 279 19:48:16 -84.38 10471
 279 21:30:21 -109.90 10472
 279 23:12:26 -135.42 10473

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|-------|
| 280 01:00:31 | -50.63 | 31542 |
| 280 02:45:26 | -76.98 | 31543 |
| 280 04:30:21 | -103.33 | 31544 |
| 280 06:15:16 | -129.69 | 31545 |
| 280 08:00:10 | -156.04 | 31546 |
| 280 09:45:05 | 177.61 | 31547 |
| 280 11:30:00 | 151.25 | 31548 |
| 280 13:14:55 | 124.90 | 31549 |
| 280 14:59:50 | 98.55 | 31550 |
| 280 16:44:45 | 72.19 | 31551 |
| 280 18:29:39 | 45.84 | 31552 |
| 280 20:14:34 | 19.48 | 31553 |
| 280 21:59:29 | -6.87 | 31554 |
| 280 23:44:24 | -33.22 | 31555 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg dg | |

| | | |
|--------------|---------|------|
| 280 01:30:19 | 164.58 | 6308 |
| 280 03:15:13 | 138.23 | 6309 |
| 280 05:00:06 | 111.88 | 6310 |
| 280 06:45:00 | 85.53 | 6311 |
| 280 08:29:54 | 59.18 | 6312 |
| 280 10:14:48 | 32.84 | 6313 |
| 280 11:59:41 | 6.48 | 6314 |
| 280 13:44:35 | -19.86 | 6315 |
| 280 15:29:29 | -46.21 | 6316 |
| 280 17:14:23 | -72.36 | 6317 |
| 280 18:59:16 | -98.91 | 6318 |
| 280 20:44:10 | -125.26 | 6319 |
| 280 22:29:04 | -151.61 | 6320 |

| | | |
|--------------|---------|-------|
| 281 01:29:19 | -59.58 | 31556 |
| 281 03:14:13 | -85.93 | 31557 |
| 281 04:59:08 | -112.29 | 31558 |
| 281 06:44:03 | -138.64 | 31559 |
| 281 08:28:58 | -164.99 | 31560 |
| 281 10:13:53 | 168.65 | 31561 |
| 281 11:58:47 | 142.30 | 31562 |
| 281 13:43:42 | 115.94 | 31563 |
| 281 15:28:37 | 89.59 | 31564 |
| 281 17:13:32 | 63.24 | 31565 |
| 281 18:58:27 | 36.98 | 31566 |
| 281 20:43:22 | 10.53 | 31567 |
| 281 22:28:16 | -15.83 | 31568 |

| | | |
|--------------|---------|------|
| 281 00:13:58 | -177.96 | 6321 |
| 281 01:58:51 | 155.69 | 6322 |
| 281 03:43:45 | 129.34 | 6323 |
| 281 05:28:39 | 102.99 | 6324 |
| 281 07:13:33 | 76.64 | 6325 |
| 281 08:58:26 | 50.29 | 6326 |
| 281 10:43:20 | 23.94 | 6327 |
| 281 12:28:14 | -2.41 | 6328 |
| 281 14:13:08 | -28.76 | 6329 |
| 281 15:58:01 | -55.11 | 6330 |
| 281 17:42:55 | -81.46 | 6331 |
| 281 19:27:49 | -107.80 | 6332 |
| 281 21:12:43 | -134.15 | 6333 |
| 281 22:57:36 | -160.50 | 6334 |

| | | |
|--------------|---------|-------|
| 282 00:13:11 | -42.18 | 31569 |
| 282 01:58:06 | -68.53 | 31570 |
| 282 03:43:01 | -94.89 | 31571 |
| 282 05:27:56 | -121.24 | 31572 |
| 282 07:12:50 | -147.60 | 31573 |
| 282 08:57:45 | -173.95 | 31574 |
| 282 10:42:40 | 159.70 | 31575 |
| 282 12:27:35 | 133.34 | 31576 |
| 282 14:12:30 | 106.99 | 31577 |
| 282 15:57:24 | 80.63 | 31578 |
| 282 17:42:19 | 54.28 | 31579 |
| 282 19:27:14 | 27.93 | 31580 |
| 282 21:12:09 | 1.57 | 31581 |
| 282 22:57:04 | -24.78 | 31582 |

| | | |
|--------------|---------|------|
| 282 00:42:30 | 173.15 | 6335 |
| 282 02:27:24 | 146.80 | 6336 |
| 282 04:12:18 | 120.45 | 6337 |
| 282 05:57:11 | 94.10 | 6338 |
| 282 07:42:05 | 67.75 | 6339 |
| 282 09:26:59 | 41.40 | 6340 |
| 282 11:11:53 | 15.05 | 6341 |
| 282 12:56:46 | -11.30 | 6342 |
| 282 14:41:40 | -37.65 | 6343 |
| 282 16:26:34 | -64.00 | 6344 |
| 282 18:11:28 | -90.35 | 6345 |
| 282 19:56:21 | -116.70 | 6346 |
| 282 21:41:15 | -143.05 | 6347 |
| 282 23:26:09 | -169.39 | 6348 |

| | | |
|--------------|---------|-------|
| 283 00:41:58 | -51.13 | 31583 |
| 283 02:26:53 | -77.49 | 31584 |
| 283 04:11:48 | -103.84 | 31585 |
| 283 05:56:43 | -130.19 | 31586 |
| 283 07:41:38 | -156.55 | 31587 |
| 283 09:26:33 | 177.10 | 31588 |
| 283 11:11:27 | 150.74 | 31589 |
| 283 12:56:22 | 124.39 | 31590 |
| 283 14:41:17 | 98.04 | 31591 |
| 283 16:26:12 | 71.68 | 31592 |
| 283 18:11:07 | 45.33 | 31593 |
| 283 19:56:01 | 18.97 | 31594 |
| 283 21:40:56 | -7.38 | 31595 |
| 283 23:25:51 | -33.73 | 31596 |

| | | |
|--------------|---------|------|
| 283 01:11:03 | 164.26 | 6349 |
| 283 02:55:56 | 137.90 | 6350 |
| 283 04:40:50 | 111.56 | 6351 |
| 283 06:25:44 | 85.21 | 6352 |
| 283 08:10:38 | 58.86 | 6353 |
| 283 09:55:31 | 32.51 | 6354 |
| 283 11:40:25 | 6.16 | 6355 |
| 283 13:25:19 | -20.19 | 6356 |
| 283 15:10:13 | -46.54 | 6357 |
| 283 16:55:06 | -72.89 | 6358 |
| 283 18:40:00 | -99.24 | 6359 |
| 283 20:24:54 | -125.59 | 6360 |
| 283 22:09:48 | -151.94 | 6361 |
| 283 23:54:41 | -178.29 | 6362 |

SATELLITE S2

Ascending Node Predictions
 Predicting for 184 days
 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 280 | 01:22:38 | -113.84 | 29978 |
| 280 | 03:04:39 | -139.34 | 29979 |
| 280 | 04:46:39 | -164.84 | 29980 |
| 280 | 06:28:40 | 169.66 | 29981 |
| 280 | 08:10:40 | 144.16 | 29982 |
| 280 | 09:52:41 | 118.66 | 29983 |
| 280 | 11:34:41 | 93.16 | 29984 |
| 280 | 13:16:42 | 67.66 | 29985 |
| 280 | 14:58:42 | 42.17 | 29986 |
| 280 | 16:40:43 | 16.66 | 29987 |
| 280 | 18:22:43 | -8.83 | 29988 |
| 280 | 20:04:44 | -34.34 | 29989 |
| 280 | 21:46:44 | -59.83 | 29990 |
| 280 | 23:28:45 | -85.34 | 29991 |

SATELLITE S3

Ascending Node Predictions
 Predicting for 184 days
 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 280 | 01:08:38 | -86.98 | 21051 |
| 280 | 02:49:51 | -112.29 | 21052 |
| 280 | 04:31:04 | -137.59 | 21053 |
| 280 | 06:12:18 | -162.90 | 21054 |
| 280 | 07:53:31 | 171.79 | 21055 |
| 280 | 09:34:44 | 146.49 | 21056 |
| 280 | 11:15:57 | 121.19 | 21057 |
| 280 | 12:57:10 | 95.88 | 21058 |
| 280 | 14:38:23 | 70.58 | 21059 |
| 280 | 16:19:37 | 45.26 | 21060 |
| 280 | 18:00:50 | 19.96 | 21061 |
| 280 | 19:42:03 | -5.34 | 21062 |
| 280 | 21:23:16 | -30.64 | 21063 |
| 280 | 23:04:29 | -55.95 | 21064 |

SATELLITE S4

Ascending Node Predictions
 Predicting for 184 days
 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | | |
|-----|----------|---------|-------|
| 280 | 00:54:31 | -160.94 | 10474 |
| 280 | 02:36:35 | 173.55 | 10475 |
| 280 | 04:18:40 | 148.02 | 10476 |
| 280 | 06:00:45 | 122.50 | 10477 |
| 280 | 07:42:50 | 96.98 | 10478 |
| 280 | 09:24:54 | 71.47 | 10479 |
| 280 | 11:06:59 | 45.95 | 10480 |
| 280 | 12:49:04 | 20.43 | 10481 |
| 280 | 14:31:09 | -5.09 | 10482 |
| 280 | 16:13:14 | -30.62 | 10483 |
| 280 | 17:55:18 | -56.12 | 10484 |
| 280 | 19:37:23 | -81.65 | 10485 |
| 280 | 21:19:28 | -107.17 | 10486 |
| 280 | 23:01:33 | -132.69 | 10487 |

| | | | |
|-----|----------|---------|-------|
| 281 | 01:10:45 | -110.83 | 29992 |
| 281 | 02:52:46 | -136.34 | 29993 |
| 281 | 04:34:46 | -161.83 | 29994 |
| 281 | 06:16:47 | 172.66 | 29995 |
| 281 | 07:58:47 | 147.17 | 29996 |
| 281 | 09:40:48 | 121.66 | 29997 |
| 281 | 11:22:48 | 96.17 | 29998 |
| 281 | 13:04:49 | 70.66 | 29999 |
| 281 | 14:46:49 | 45.17 | 30000 |
| 281 | 16:28:50 | 19.67 | 30001 |
| 281 | 18:10:50 | -5.83 | 30002 |
| 281 | 19:52:51 | -31.33 | 30003 |
| 281 | 21:34:51 | -56.83 | 30004 |
| 281 | 23:16:52 | -82.33 | 30005 |

| | | | |
|-----|----------|---------|-------|
| 281 | 00:45:43 | -81.26 | 21065 |
| 281 | 02:26:56 | -106.57 | 21066 |
| 281 | 04:08:09 | -131.87 | 21067 |
| 281 | 05:49:22 | -157.17 | 21068 |
| 281 | 07:30:35 | 177.52 | 21069 |
| 281 | 09:11:49 | 152.21 | 21070 |
| 281 | 10:53:02 | 126.90 | 21071 |
| 281 | 12:34:15 | 101.60 | 21072 |
| 281 | 14:15:28 | 76.30 | 21073 |
| 281 | 15:56:41 | 51.00 | 21074 |
| 281 | 17:37:54 | 25.69 | 21075 |
| 281 | 19:19:08 | .38 | 21076 |
| 281 | 21:00:21 | -24.93 | 21077 |
| 281 | 22:41:34 | -50.23 | 21078 |

| | | | |
|-----|----------|---------|-------|
| 281 | 00:43:37 | -158.20 | 10488 |
| 281 | 02:25:42 | 176.28 | 10489 |
| 281 | 04:07:47 | 150.76 | 10490 |
| 281 | 05:49:52 | 125.24 | 10491 |
| 281 | 07:31:57 | 99.71 | 10492 |
| 281 | 09:14:01 | 74.20 | 10493 |
| 281 | 10:56:06 | 48.68 | 10494 |
| 281 | 12:38:11 | 23.16 | 10495 |
| 281 | 14:20:16 | -2.36 | 10496 |
| 281 | 16:02:20 | -27.87 | 10497 |
| 281 | 17:44:25 | -53.39 | 10498 |
| 281 | 19:26:30 | -78.91 | 10499 |
| 281 | 21:08:35 | -104.44 | 10500 |
| 281 | 22:50:40 | -129.96 | 10501 |

| | | | |
|-----|----------|---------|-------|
| 282 | 00:58:52 | -107.83 | 30006 |
| 282 | 02:40:53 | -133.33 | 30007 |
| 282 | 04:22:53 | -158.82 | 30008 |
| 282 | 06:04:54 | 175.67 | 30009 |
| 282 | 07:46:54 | 150.18 | 30010 |
| 282 | 09:28:55 | 124.67 | 30011 |
| 282 | 11:10:55 | 99.18 | 30012 |
| 282 | 12:52:56 | 73.67 | 30013 |
| 282 | 14:34:56 | 48.18 | 30014 |
| 282 | 16:16:57 | 22.67 | 30015 |
| 282 | 17:58:57 | -2.82 | 30016 |
| 282 | 19:40:58 | -28.33 | 30017 |
| 282 | 21:22:58 | -53.82 | 30018 |
| 282 | 23:04:59 | -79.33 | 30019 |

| | | | |
|-----|----------|---------|-------|
| 282 | 00:22:47 | -75.53 | 21079 |
| 282 | 02:04:00 | -100.84 | 21080 |
| 282 | 03:45:14 | -126.15 | 21081 |
| 282 | 05:26:27 | -151.45 | 21082 |
| 282 | 07:07:40 | -176.76 | 21083 |
| 282 | 08:48:53 | 157.94 | 21084 |
| 282 | 10:30:06 | 132.64 | 21085 |
| 282 | 12:11:20 | 107.32 | 21086 |
| 282 | 13:52:33 | 82.02 | 21087 |
| 282 | 15:33:46 | 56.71 | 21088 |
| 282 | 17:14:59 | 31.41 | 21089 |
| 282 | 18:56:12 | 6.11 | 21090 |
| 282 | 20:37:25 | -19.19 | 21091 |
| 282 | 22:18:39 | -44.51 | 21092 |
| 282 | 23:59:52 | -69.81 | 21093 |

| | | | |
|-----|----------|---------|-------|
| 282 | 00:32:44 | -155.47 | 10502 |
| 282 | 02:14:49 | 179.01 | 10503 |
| 282 | 03:56:54 | 153.49 | 10504 |
| 282 | 05:38:59 | 127.97 | 10505 |
| 282 | 07:21:03 | 102.46 | 10506 |
| 282 | 09:03:08 | 76.94 | 10507 |
| 282 | 10:45:13 | 51.42 | 10508 |
| 282 | 12:27:18 | 25.89 | 10509 |
| 282 | 14:09:23 | .37 | 10510 |
| 282 | 15:51:27 | -25.14 | 10511 |
| 282 | 17:33:32 | -50.66 | 10512 |
| 282 | 19:15:37 | -76.18 | 10513 |
| 282 | 20:57:42 | -101.70 | 10514 |
| 282 | 22:39:46 | -127.21 | 10515 |

| | | | |
|-----|----------|---------|-------|
| 283 | 00:46:59 | -104.82 | 30020 |
| 283 | 02:29:00 | -130.33 | 30021 |
| 283 | 04:11:00 | -155.82 | 30022 |
| 283 | 05:53:01 | 178.67 | 30023 |
| 283 | 07:35:01 | 153.18 | 30024 |
| 283 | 09:17:01 | 127.69 | 30025 |
| 283 | 10:59:02 | 102.18 | 30026 |
| 283 | 12:41:02 | 76.69 | 30027 |
| 283 | 14:23:03 | 51.18 | 30028 |
| 283 | 16:05:03 | 25.69 | 30029 |
| 283 | 17:47:04 | .18 | 30030 |
| 283 | 19:29:04 | -25.31 | 30031 |
| 283 | 21:11:05 | -50.81 | 30032 |
| 283 | 22:53:05 | -76.31 | 30033 |

| | | | |
|-----|----------|---------|-------|
| 283 | 01:41:05 | -95.12 | 21094 |
| 283 | 03:22:18 | -120.42 | 21095 |
| 283 | 05:03:31 | -145.72 | 21096 |
| 283 | 06:44:45 | -171.04 | 21097 |
| 283 | 08:25:58 | 163.66 | 21098 |
| 283 | 10:07:11 | 138.36 | 21099 |
| 283 | 11:48:24 | 113.05 | 21100 |
| 283 | 13:29:37 | 87.75 | 21101 |
| 283 | 15:10:51 | 62.43 | 21102 |
| 283 | 16:52:04 | 37.13 | 21103 |
| 283 | 18:33:17 | 11.83 | 21104 |
| 283 | 20:14:30 | -13.48 | 21105 |
| 283 | 21:55:43 | -38.78 | 21106 |
| 283 | 23:36:57 | -64.09 | 21107 |

| | | | |
|-----|----------|---------|-------|
| 283 | 00:21:51 | -152.73 | 10516 |
| 283 | 02:03:56 | -178.25 | 10517 |
| 283 | 03:46:01 | 156.22 | 10518 |
| 283 | 05:28:06 | 130.70 | 10519 |
| 283 | 07:10:10 | 105.19 | 10520 |
| 283 | 08:52:15 | 79.67 | 10521 |
| 283 | 10:34:20 | 54.15 | 10522 |
| 283 | 12:16:25 | 28.63 | 10523 |
| 283 | 13:58:29 | 3.12 | 10524 |
| 283 | 15:40:34 | -22.40 | 10525 |
| 283 | 17:22:39 | -47.93 | 10526 |
| 283 | 19:04:44 | -73.45 | 10527 |
| 283 | 20:46:49 | -98.97 | 10528 |
| 283 | 22:28:53 | -124.48 | 10529 |

SATELLITE C3
Ascending Node Predictions

Predicting for 186 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|-------|
| 284 01:10:46 | -60.09 | 31597 |
| 284 02:55:41 | -86.44 | 31598 |
| 284 04:40:35 | -112.80 | 31599 |
| 284 06:25:30 | -139.15 | 31600 |
| 284 08:10:25 | -165.50 | 31601 |
| 284 09:55:20 | 168.14 | 31602 |
| 284 11:40:15 | 141.79 | 31603 |
| 284 13:25:10 | 115.44 | 31604 |
| 284 15:10:04 | 89.08 | 31605 |
| 284 16:54:59 | 62.73 | 31606 |
| 284 18:39:54 | 36.37 | 31607 |
| 284 20:24:49 | 10.02 | 31608 |
| 284 22:09:44 | -16.33 | 31609 |
| 284 23:54:38 | -42.69 | 31610 |

SATELLITE C4
Ascending Node Predictions

Predicting for 184 days

 TIME (GMT) E LONG ORBIT
 day hr mn sc deg dg

| | | |
|--------------|---------|------|
| 284 01:39:35 | 155.36 | 6363 |
| 284 03:24:29 | 129.01 | 6364 |
| 284 05:09:23 | 102.67 | 6365 |
| 284 06:54:16 | 76.31 | 6366 |
| 284 08:39:10 | 49.97 | 6367 |
| 284 10:24:04 | 23.62 | 6368 |
| 284 12:08:58 | -2.73 | 6369 |
| 284 13:53:51 | -29.08 | 6370 |
| 284 15:38:45 | -55.43 | 6371 |
| 284 17:23:39 | -81.78 | 6372 |
| 284 19:08:33 | -108.13 | 6373 |
| 284 20:53:26 | -134.48 | 6374 |
| 284 22:38:20 | -160.83 | 6375 |

| | | |
|--------------|---------|-------|
| 285 01:39:33 | -69.04 | 31611 |
| 285 03:24:28 | -95.40 | 31612 |
| 285 05:09:23 | -121.75 | 31613 |
| 285 06:54:18 | -148.10 | 31614 |
| 285 08:39:12 | -174.46 | 31615 |
| 285 10:24:07 | 159.19 | 31616 |
| 285 12:09:02 | 132.83 | 31617 |
| 285 13:53:57 | 106.48 | 31618 |
| 285 15:38:52 | 80.13 | 31619 |
| 285 17:23:46 | 53.77 | 31620 |
| 285 19:08:41 | 27.42 | 31621 |
| 285 20:53:36 | 1.07 | 31622 |
| 285 22:38:31 | -25.29 | 31623 |

| | | |
|--------------|---------|------|
| 285 00:23:14 | 172.82 | 6376 |
| 285 02:08:08 | 146.47 | 6377 |
| 285 03:53:01 | 120.12 | 6378 |
| 285 05:37:55 | 93.77 | 6379 |
| 285 07:22:49 | 67.42 | 6380 |
| 285 09:07:43 | 41.08 | 6381 |
| 285 10:52:36 | 14.72 | 6382 |
| 285 12:37:30 | -11.62 | 6383 |
| 285 14:22:24 | -37.97 | 6384 |
| 285 16:07:18 | -64.32 | 6385 |
| 285 17:52:11 | -90.67 | 6386 |
| 285 19:37:05 | -117.02 | 6387 |
| 285 21:21:59 | -143.37 | 6388 |
| 285 23:06:52 | -169.72 | 6389 |

| | | |
|--------------|---------|-------|
| 286 00:23:26 | -51.64 | 31624 |
| 286 02:08:21 | -77.99 | 31625 |
| 286 03:53:15 | -104.35 | 31626 |
| 286 05:38:10 | -130.70 | 31627 |
| 286 07:23:05 | -157.06 | 31628 |
| 286 09:08:00 | 176.59 | 31629 |
| 286 10:52:55 | 150.24 | 31630 |
| 286 12:37:49 | 123.88 | 31631 |
| 286 14:22:44 | 97.53 | 31632 |
| 286 16:07:39 | 71.17 | 31633 |
| 286 17:52:34 | 44.82 | 31634 |
| 286 19:37:29 | 18.47 | 31635 |
| 286 21:22:23 | -7.89 | 31636 |
| 286 23:07:18 | -34.24 | 31637 |

| | | |
|--------------|---------|------|
| 286 00:51:46 | 163.93 | 6390 |
| 286 02:36:40 | 137.58 | 6391 |
| 286 04:21:34 | 111.23 | 6392 |
| 286 06:06:27 | 84.88 | 6393 |
| 286 07:51:21 | 58.53 | 6394 |
| 286 09:36:15 | 32.18 | 6395 |
| 286 11:21:09 | 5.83 | 6396 |
| 286 13:06:02 | -20.52 | 6397 |
| 286 14:50:56 | -46.87 | 6398 |
| 286 16:35:50 | -73.21 | 6399 |
| 286 18:20:44 | -99.56 | 6400 |
| 286 20:05:37 | -125.91 | 6401 |
| 286 21:50:31 | -152.26 | 6402 |
| 286 23:35:25 | -178.61 | 6403 |

| | | |
|--------------|---------|-------|
| 287 00:52:13 | -60.60 | 31638 |
| 287 02:37:08 | -86.95 | 31639 |
| 287 04:22:03 | -113.30 | 31640 |
| 287 06:06:57 | -139.66 | 31641 |
| 287 07:51:52 | -166.01 | 31642 |
| 287 09:36:47 | 167.63 | 31643 |
| 287 11:21:42 | 141.28 | 31644 |
| 287 13:06:37 | 114.93 | 31645 |
| 287 14:51:32 | 88.57 | 31646 |
| 287 16:36:26 | 62.22 | 31647 |
| 287 18:21:21 | 35.86 | 31648 |
| 287 20:06:16 | 9.51 | 31649 |
| 287 21:51:11 | -16.84 | 31650 |
| 287 23:36:06 | -43.20 | 31651 |

| | | |
|--------------|---------|------|
| 287 01:20:19 | 155.04 | 6404 |
| 287 03:05:12 | 128.69 | 6405 |
| 287 04:50:06 | 102.34 | 6406 |
| 287 06:35:00 | 75.99 | 6407 |
| 287 08:19:54 | 49.64 | 6408 |
| 287 10:04:47 | 23.29 | 6409 |
| 287 11:49:41 | -3.06 | 6410 |
| 287 13:34:35 | -29.41 | 6411 |
| 287 15:19:29 | -55.76 | 6412 |
| 287 17:04:22 | -82.11 | 6413 |
| 287 18:49:16 | -108.46 | 6414 |
| 287 20:34:10 | -134.80 | 6415 |
| 287 22:19:04 | -161.15 | 6416 |

| SATELLITE S2 | | | | | | |
|----------------------------|---------|-------|-----|----------|--------|--|
| Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | |
| TIME (GMT) | E LONG | ORBIT | day | hr mn sc | deg dg | |
| 284 00:35:06 | -101.81 | 30034 | | | | |
| 284 02:17:06 | -127.31 | 30035 | | | | |
| 284 03:59:07 | -152.81 | 30036 | | | | |
| 284 05:41:07 | -178.31 | 30037 | | | | |
| 284 07:23:08 | 156.19 | 30038 | | | | |
| 284 09:05:08 | 130.70 | 30039 | | | | |
| 284 10:47:09 | 105.19 | 30040 | | | | |
| 284 12:29:09 | 79.70 | 30041 | | | | |
| 284 14:11:10 | 54.19 | 30042 | | | | |
| 284 15:53:10 | 28.70 | 30043 | | | | |
| 284 17:35:11 | 3.19 | 30044 | | | | |
| 284 19:17:11 | -22.30 | 30045 | | | | |
| 284 20:59:12 | -47.81 | 30046 | | | | |
| 284 22:41:12 | -73.30 | 30047 | | | | |

| SATELLITE S3 | | | | | | |
|----------------------------|---------|-------|-----|----------|--------|--|
| Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | |
| TIME (GMT) | E LONG | ORBIT | day | hr mn sc | deg dg | |
| 284 01:18:10 | -89.40 | 21108 | | | | |
| 284 02:59:23 | -114.70 | 21109 | | | | |
| 284 04:40:36 | -140.00 | 21110 | | | | |
| 284 06:21:49 | -165.31 | 21111 | | | | |
| 284 08:03:02 | 169.39 | 21112 | | | | |
| 284 09:44:16 | 144.07 | 21113 | | | | |
| 284 11:25:29 | 118.77 | 21114 | | | | |
| 284 13:06:42 | 93.47 | 21115 | | | | |
| 284 14:47:55 | 68.17 | 21116 | | | | |
| 284 16:29:08 | 42.86 | 21117 | | | | |
| 284 18:10:22 | 17.55 | 21118 | | | | |
| 284 19:51:35 | -7.76 | 21119 | | | | |
| 284 21:32:48 | -33.06 | 21120 | | | | |
| 284 23:14:01 | -58.36 | 21121 | | | | |

| SATELLITE S4 | | | | | | |
|----------------------------|---------|-------|-----|----------|--------|--|
| Ascending Node Predictions | | | | | | |
| Predicting for 184 days | | | | | | |
| TIME (GMT) | E LONG | ORBIT | day | hr mn sc | deg dg | |
| 284 00:10:38 | -150.00 | 10530 | | | | |
| 284 01:53:03 | -175.52 | 10531 | | | | |
| 284 03:35:08 | 158.96 | 10532 | | | | |
| 284 05:17:12 | 133.45 | 10533 | | | | |
| 284 06:59:17 | 107.93 | 10534 | | | | |
| 284 08:41:22 | 82.40 | 10535 | | | | |
| 284 10:23:27 | 56.88 | 10536 | | | | |
| 284 12:05:31 | 31.37 | 10537 | | | | |
| 284 13:47:36 | 5.85 | 10538 | | | | |
| 284 15:29:41 | -19.67 | 10539 | | | | |
| 284 17:11:46 | -45.19 | 10540 | | | | |
| 284 18:53:51 | -70.71 | 10541 | | | | |
| 284 20:35:55 | -96.22 | 10542 | | | | |
| 284 22:18:00 | -121.74 | 10543 | | | | |

| | | |
|--------------|---------|-------|
| 285 00:23:13 | -98.81 | 30048 |
| 285 02:05:13 | -124.30 | 30049 |
| 285 03:47:14 | -149.81 | 30050 |
| 285 05:29:14 | -175.30 | 30051 |
| 285 07:11:15 | 159.19 | 30052 |
| 285 08:53:15 | 133.70 | 30053 |
| 285 10:35:16 | 108.19 | 30054 |
| 285 12:17:16 | 82.70 | 30055 |
| 285 13:59:17 | 57.20 | 30056 |
| 285 15:41:17 | 31.70 | 30057 |
| 285 17:23:18 | 6.20 | 30058 |
| 285 19:05:18 | -19.30 | 30059 |
| 285 20:47:19 | -44.80 | 30060 |
| 285 22:29:19 | -70.30 | 30061 |

| | | |
|--------------|---------|-------|
| 285 00:55:14 | -83.67 | 21122 |
| 285 02:36:28 | -108.98 | 21123 |
| 285 04:17:41 | -134.28 | 21124 |
| 285 05:58:54 | -159.59 | 21125 |
| 285 07:40:07 | 175.11 | 21126 |
| 285 09:21:20 | 149.81 | 21127 |
| 285 11:02:33 | 124.50 | 21128 |
| 285 12:43:47 | 99.19 | 21129 |
| 285 14:25:00 | 73.88 | 21130 |
| 285 16:06:13 | 48.58 | 21131 |
| 285 17:47:26 | 23.28 | 21132 |
| 285 19:28:39 | -2.02 | 21133 |
| 285 21:09:53 | -27.34 | 21134 |
| 285 22:51:06 | -52.64 | 21135 |

| | | |
|--------------|---------|-------|
| 285 00:00:05 | -147.27 | 10544 |
| 285 01:42:10 | -172.79 | 10545 |
| 285 03:24:14 | 161.70 | 10546 |
| 285 05:06:19 | 136.18 | 10547 |
| 285 06:48:24 | 110.66 | 10548 |
| 285 08:30:29 | 85.14 | 10549 |
| 285 10:12:34 | 59.61 | 10550 |
| 285 11:54:38 | 34.11 | 10551 |
| 285 13:36:43 | 8.58 | 10552 |
| 285 15:18:48 | -16.94 | 10553 |
| 285 17:00:53 | -42.46 | 10554 |
| 285 18:42:57 | -67.97 | 10555 |
| 285 20:23:02 | -93.49 | 10556 |
| 285 22:07:07 | -119.01 | 10557 |
| 285 23:49:12 | -144.53 | 10558 |

| | | |
|--------------|---------|-------|
| 286 00:11:20 | -95.80 | 30062 |
| 286 01:53:20 | -121.29 | 30063 |
| 286 03:35:21 | -146.80 | 30064 |
| 286 05:17:21 | -172.29 | 30065 |
| 286 06:59:22 | 162.20 | 30066 |
| 286 08:41:22 | 136.71 | 30067 |
| 286 10:23:23 | 111.20 | 30068 |
| 286 12:05:23 | 85.71 | 30069 |
| 286 13:47:24 | 60.20 | 30070 |
| 286 15:29:24 | 34.71 | 30071 |
| 286 17:11:25 | 9.20 | 30072 |
| 286 18:53:25 | -16.29 | 30073 |
| 286 20:35:26 | -41.80 | 30074 |
| 286 22:17:26 | -67.29 | 30075 |
| 286 23:59:27 | -92.80 | 30076 |

| | | |
|--------------|---------|-------|
| 286 00:32:19 | -77.95 | 21136 |
| 286 02:13:32 | -103.25 | 21137 |
| 286 03:54:45 | -128.55 | 21138 |
| 286 05:35:59 | -153.87 | 21139 |
| 286 07:17:12 | -179.17 | 21140 |
| 286 08:58:25 | 155.53 | 21141 |
| 286 10:39:38 | 130.22 | 21142 |
| 286 12:20:51 | 104.92 | 21143 |
| 286 14:02:05 | 79.60 | 21144 |
| 286 15:43:18 | 54.30 | 21145 |
| 286 17:24:31 | 29.00 | 21146 |
| 286 19:05:44 | 3.69 | 21147 |
| 286 20:46:57 | -21.61 | 21148 |
| 286 22:28:10 | -46.91 | 21149 |

| | | |
|--------------|---------|-------|
| 286 01:31:17 | -170.06 | 10559 |
| 286 03:13:21 | 164.44 | 10560 |
| 286 04:55:26 | 138.91 | 10561 |
| 286 06:37:31 | 113.39 | 10562 |
| 286 08:19:36 | 87.87 | 10563 |
| 286 10:01:40 | 62.36 | 10564 |
| 286 11:43:45 | 36.84 | 10565 |
| 286 13:25:50 | 11.32 | 10566 |
| 286 15:07:55 | -14.20 | 10567 |
| 286 16:50:00 | -39.73 | 10568 |
| 286 18:32:04 | -65.23 | 10569 |
| 286 20:14:09 | -90.76 | 10570 |
| 286 21:56:14 | -116.28 | 10571 |
| 286 23:38:19 | -141.80 | 10572 |

| | | |
|--------------|---------|-------|
| 287 01:41:27 | -118.29 | 30077 |
| 287 03:23:28 | -143.80 | 30078 |
| 287 05:05:28 | -169.29 | 30079 |
| 287 06:47:29 | 165.21 | 30080 |
| 287 08:29:29 | 139.71 | 30081 |
| 287 10:11:29 | 114.22 | 30082 |
| 287 11:53:30 | 88.71 | 30083 |
| 287 13:35:30 | 63.22 | 30084 |
| 287 15:17:31 | 37.71 | 30085 |
| 287 16:59:31 | 12.22 | 30086 |
| 287 18:41:32 | -13.28 | 30087 |
| 287 20:23:32 | -38.78 | 30088 |
| 287 22:05:33 | -64.28 | 30089 |
| 287 23:47:33 | -89.78 | 30090 |

| | | |
|--------------|---------|-------|
| 287 00:09:24 | -72.23 | 21150 |
| 287 01:50:37 | -97.53 | 21151 |
| 287 03:31:50 | -122.83 | 21152 |
| 287 05:13:03 | -148.14 | 21153 |
| 287 06:54:16 | -173.44 | 21154 |
| 287 08:35:30 | 161.24 | 21155 |
| 287 10:16:43 | 135.94 | 21156 |
| 287 11:57:56 | 110.64 | 21157 |
| 287 13:39:09 | 85.34 | 21158 |
| 287 15:20:22 | 60.03 | 21159 |
| 287 17:01:36 | 34.72 | 21160 |
| 287 18:42:49 | 9.41 | 21161 |
| 287 20:24:02 | -15.89 | 21162 |
| 287 22:05:15 | -41.19 | 21163 |
| 287 23:46:28 | -66.50 | 21164 |

| | | |
|--------------|---------|-------|
| 287 01:20:23 | -167.31 | 10573 |
| 287 03:02:28 | 167.17 | 10574 |
| 287 04:44:33 | 141.65 | 10575 |
| 287 06:26:38 | 1 | |

SATELLITE C3**Ascending Node Predictions**

Predicting for 186 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg | dg |

| | | |
|--------------|---------|-------|
| 288 01:21:00 | -69.55 | 31652 |
| 288 03:05:55 | -95.91 | 31653 |
| 288 04:50:50 | -122.26 | 31654 |
| 288 06:35:45 | -148.61 | 31655 |
| 288 08:20:40 | -174.97 | 31656 |
| 288 10:05:34 | 158.68 | 31657 |
| 288 11:50:29 | 132.33 | 31658 |
| 288 13:35:24 | 105.97 | 31659 |
| 288 15:20:19 | 79.62 | 31660 |
| 288 17:05:14 | 53.27 | 31661 |
| 288 18:50:09 | 26.91 | 31662 |
| 288 20:35:03 | .56 | 31663 |
| 288 22:19:58 | -25.80 | 31664 |

SATELLITE C4**Ascending Node Predictions**

Predicting for 184 days

| TIME (GMT) | E LONG | ORBIT |
|--------------|--------|-------|
| day hr mn sc | deg | dg |

| | | |
|--------------|---------|-------|
| 289 00:04:53 | -52.15 | 31665 |
| 289 01:49:48 | -78.50 | 31666 |
| 289 03:34:43 | -104.86 | 31667 |
| 289 05:19:37 | -131.21 | 31668 |
| 289 07:04:32 | -157.57 | 31669 |
| 289 08:49:27 | 176.08 | 31670 |
| 289 10:34:22 | 149.73 | 31671 |
| 289 12:19:17 | 123.37 | 31672 |
| 289 14:04:11 | 97.02 | 31673 |
| 289 15:49:06 | 70.66 | 31674 |
| 289 17:34:01 | 44.31 | 31675 |
| 289 19:18:56 | 17.96 | 31676 |
| 289 21:03:51 | -8.40 | 31677 |
| 289 22:48:45 | -34.75 | 31678 |